V-3-21

H.4.8

[illegible]

1G. 9. 2.

A

CURSORY VIEW

OF THE

TREATMENT OF ULCERS,

Price Three Shillings and Sixpence in Boards.

A

A

CURSORY

VIEW OF THE TREATMENT

OF

ULCERS,

MORE ESPECIALLY THOSE OF THE

Scrofulous, Phagedænic, & Cancerous

DESCRIPTION.

WITH AN

APPENDIX,

ON

BAYNTON's NEW MODE OF TREATING

Old Ulcers of the Leg.

BY RICHARD NAYLER,

SURGEON TO THE GLOCESTER INFIRMARY.

GLOCESTER,

PRINTED BY R. RAIKES,

Southgate-street,

FOR G. KEARSLEY, FLEET-STREET, LONDON,

AND SOLD BY WASHBOURN AND HOUGH, GLOCESTER,

AND T. A. PEARSON, BIRMINGHAM.

1800.

TO

Richard Browne Cheston, M.D. F.R.S.

PHYSICIAN TO THE GLOCESTER INFIRMARY.

DEAR SIR,

I OWE so much to your friendship and patronage, that it would be unpardonable, were I to omit the opportunity which the publication of the following sheets affords me, of offering you this humble though sincere tribute of my respect and gratitude.

Educated under your eye, and indebted, for whatever share of professional consideration I may enjoy, to an assiduous endeavour to form myself on so great a model, I indulge a hope that you will consider the prefixing of your name to these

Remarks as no degradation, however imperfect you may think my efforts to throw some farther light on a subject which so few are qualified by a sufficient share of experience to investigate, and on a material branch *of which, your extraordinary abilities have, heretofore, been no less appropriately than beneficially exercised.*

That you may long continue to give lustre to the Medical Profession, and to benefit mankind by your active services therein, is the ardent wish of,

DEAR SIR,

YOUR FAITHFUL FRIEND,

AND OBLIGED HUMBLE SERVANT,

THE AUTHOR.

Glocester, December 16, 1799.

ADVERTISEMENT.

A DESIRE of correcting minute errors in the treatment of Ulcers, and of drawing the attention of medical men to the consideration of facts of much relative importance to the subject, is the only motive for the following observations, which pretend less to enlarge the boundaries of Chirurgical knowledge than to furnish the young practitioner with useful reflections.

Where, as unhappily is the case in the treatment of Ulcers, no *uniform theory* can direct us in our endeavours, every hint must have its value; and the knowledge of *what is to be preferred, and what is to be avoided*, must consequently become an object of no small importance.

If the author has attempted this in a way that is imperfect or inadequate, or has become obscure where he intended only to be brief, he must plead in excuse, his frequent and unavoidable professional interruptions. Whether this plea be admissible or not, and whether the defective and loose state in which his ideas have been thrown together, may meet

with the indulgence he is sensible they require, will depend on the great degree of candour and liberality which thoſe who may honor him with a perusal may be disposed to exercise.——Prompted merely by a wish of becoming useful to those who may not have had opportunities equal with himself of ascertaining in what manner the cure of Ulcers may be best effected, he cannot but hope, that even the most fastidious reader will on this ground at least approve of his intention.

ERRATA.

In *Page* 24, *line* 16, *for* movement, *read* moment.
52, — 6, *for* manifect, *read* manifest.
84, — 7, *for* prostrate, *read* prostate.
86, — 8, *for* lpmph, *read* lymph.
111, — 19, *for* excedens, *read* exedens.
122, — 20, *for* innoxious, *read* noxious.
147, — 1, *for* belledonna, *read* belladonna.
152, — last, *for* nosscumii, *read* nosocomii.
153, — 8, *for* ammonicale, *read* ammoniacale.

CONTENTS.

PART I.

Of those Ulcers which may exist independent of any Affection of the System.

PAGE

Preliminary Observations 1
Of Rest and an Horizontal Position of the Leg 9
Of Internal Remedies 11
Of the Constitutional Complaints which sometimes accompany simple Ulcers of the Leg 16
Of Topical Remedies in general 18
Of the Symptoms of Ulcers 31

PART II.

Of Ulcers, in the Production or Existence of which the Constitution participates.

Of the Scorbutic Ulcer 47
Of the Venereal Ulcer 53
Of the Scrofulous Ulcer 58
Of the Phagedænic Ulcer 101
Of the Cancerous Ulcer 128

APPENDIX.

On the mode of treating Ulcers by the mechanical concentration of the surrounding skin 163

PRACTICAL REMARKS,

&c. &c.

PART I.

Of those Ulcers, which may exist independent of any affection of the system.

PRELIMINARY OBSERVATIONS.

NOTWITHSTANDING the ingenuity with which the ſubject of the following pages has been treated by various authors, it is one which is ſo beſet with difficulties, and liable to ſo much incertitude, that few practitioners are diſpoſed to acknowledge themſelves indebted to anything but experience even for the imperfect degree of ſucceſs with which they are enabled to treat the different ſpecies of ulcers at preſent. This being the caſe, it is not to be ſuppoſed,

that they entertain any very decided veneration for ſyſtems and theories, however nice in point of arrangement, or admirable in their adaptation to ſymptoms and appearances. A more welcome, and, I truſt, a more uſeful taſk, at leaſt, to the young practitioner, will be that of communicating, with little attention to order or hypotheſis, what facts and obſervation have taught me, in a ſituation where the opportunities of remark have been abundant, and where the impediments to a regular treatment have been of courſe leſs frequent than uſually occur in private practice.

It is, perhaps, a ſufficient definition of an ulcer, to ſay, that it is *a ſolution of continuity in any of the ſoft parts of the body, accompanied with loss of ſubſtance, and a diſcharge of ill-conditioned pus, ichor, ſanies, ſordes, or any kind of vitiated fluid.*

Of the diviſion of ulcers, as ſuggeſted by modern writers, there is none more worthy of our adoption than that very general one of *local* and *conſtitutional*; the former exiſting merely in conſequence of ſome external exciting cauſe being continued, and counteracting the efforts of nature to remedy the evil; the latter ariſing from,

or at leaſt, being prolonged by, ſome conſtitutional affection. A common wound, degenerated from its original ſimple, healthy ſtate, into an habitual, complicated, morbid one, furniſhes an example of the former kind; and that ſpecies of ulcer, called ſcrofulous, which ariſes ſpontaneouſly, and is curable only by remedies that act on the ſyſtem, may be cited as an inſtance of the latter.

The local ulcer, exiſting on any other part of the body except the legs, is far from being unmanageable, or difficult of cure. It, in fact, requires nothing but a daily renewal of ſome kind of ſimple dreſſing, leſs with the poſitive intention of promoting the reſtoration of the part, than with the negative one of preventing any impediment to the ſalutary operations of nature. But the ulcer of the lower extremity, is the formidable diſeaſe with which we have to contend. It is this which is, perhaps, the moſt frequent of any chirurgical complaint, which too often baffles the exerciſe of our art, and which, when cured, very commonly returns; inſomuch, that the ulcer of the leg may, without any great violation of propriety, be conſidered as a diſeaſe *sui generis*.

It has employed the conjectures of many in genious men, to aſſign cauſes for the frequency, as well as the obſtinacy, of this complaint.—Many may, undoubtedly, concur, ſome too which are unknown; for of cauſes we know little.

Mr. Underwood attempts to ſolve the difficulty, by calling our attention, firſt, to the natural languid ſtate of the circulation in parts ſituated at ſuch a diſtance from the heart; by which, the vital energy in them being diminiſhed, the healing powers that depend upon it, muſt alſo, of conſequence, be weakened. Secondly, he conſiders as a material impediment to the ſucceſs of our treatment, the natural ſtructure of the parts, which conſiſt much of tendinous and ligamentous ſubſtances, poſſeſſing a ſmall ſhare of irritability, and not eaſily excited to that degree of healthy action which the caſe requires.

But it has been aſſerted by ſome, and implicitly believed by many, that, admitting it were more practicable than it really is, to heal an old ulcer of the leg, the practice is *not a ſafe one.*—Let us ſtop here to conſider this opinion.

It is undoubtedly true, in point of fact, that perſons, who have for many years laboured under this diſeaſe, and eſpecially at an advanced period of life, have ſuffered conſiderable inconvenience from the healing of an ulcer. We are forbidden by modern theory to ſuppoſe, that the ulcer, in the time of its exiſtence, *drained* the conſtitution of ſomething that had a morbid tendency, and required an outlet: yet, that muſt either have been the caſe, or we muſt admit, that the ſolids underwent a peculiar and *ſalutary action* whilſt the ulcer exiſted, which the conſtitution would not conſent to be deprived of. However this be, certain it is, that when a large and long exiſting ulcer has been brought nearly to the point of healing, or become actually healed, it is not very uncommon for the patient to be attacked with febrile ſymptoms, or with ſome affection of the ſtomach or bowels, during the exiſtence of which, the ulcer has ſhewn a diſpoſition to enlarge. Some old perſons have even, it is ſaid, become paralytic under the like circumſtances.

Experience, however, has ſhewn, that whether theſe miſchievous effects ariſe or not after the healing of an old ulcer, they ariſe, at leaſt, in very few inſtances; ſo few, indeed, as by no

means to impugn what is now a pretty general practice, *to heal the ulcer whenever it is possible*, without attending to what may be *the consequence**.

But, indeed, whenever theſe inconveniencies do occur, they are, in moſt inſtances, capable of being done away by veneſection, by the adminiſtration of emetics, ſaline or draſtic purgatives, or the bark; or, in ſome caſes, by a bliſter applied to a diſtant part.

On the firſt occurrence of unfavourable ſymptoms, or before they have taken place, the common, and certainly a good preventative remedy, is the opening an iſſue, on the inſide, and immediately below, the knee of the diſeaſed extremity. This, in a great meaſure, ſupplies a ſubſtitute for that ſort of *action, or that sort of drain*, to which the patient's conſtitution has been familiar, and the ulcer, in many inſtances, will remain permanently healed.

Whilſt we are on this ſubject, it may not be improper to mention an inſtance, adduced by a

* The late Mr. Juſtamond, an eminent lecturer and practitioner in London, has declared, that he never knew the healing of an ulcer fatal, except in *one* inſtance.

late eminent practitioner, of an ulcer in the leg, caused by the imprudent suppression of an habitual perspiration in the soles of the feet. The ulcer, after having subsisted ten years, was healed by the perspiration of the feet being brought on again; and a relapse was also prevented, by the use of a stocking made of the common silk oil-skin.

That a languid degree of circulation is among the principal causes of the ulcer of the leg is farther confirmed by the well-known fact, —that women, who are more debilitated than men, are more liable than the latter to this troublesome disease. Another proof is, the frequency of the disease in the lower class of people, who, from the scantiness of their food, are not sufficiently nourished. On their coming into an hospital, where they enjoy a better and more nourishing diet, it is remarkable, how soon an advantageous change takes place in the ulcer, which heals, and would perhaps remain cured, but that, on returning once more to their usual way of living, they become subject to a renewal of the complaint.

In treating on ulcerated legs, moſt writers require an attention to the following circumſtances:—1ſt, abſolute reſt, and an horizontal poſition of the limb; 2dly, the proper choice of internal remedies; 3dly, the application of a bandage; 4thly, the proper choice of topics to the ulcer. Of theſe we ſhall now proceed to ſpeak nearly in the order in which they ſtand.

§ 1. *Of rest, and the necessity of an horizontal position of the leg.*

When an ulcer is formed on the leg, and the part is in an irritable and inflamed ſtate, it is very natural to ſuppoſe, that motion muſt tend greatly to augment the miſchief; and that it actually does ſo, we have repeated and melancholy proofs, amongſt the labouring poor, who cannot poſſibly find thoſe opportunities of remaining at reſt that their unfortunate caſes require. This it is, joined to the cauſes of debility already enumerated, and we may add, the too prevalent uſe of ſpirituous liquors, that occaſions the moſt inconſiderable loſs of ſkin, perhaps, to degenerate into an ulcer of the moſt formidable kind.

If ſuch then be the effects of exerciſe on an ulcer, it would ſeem, *a priori*, that reſt muſt be indiſpenſably neceſſary in attempting its cure.—But ſome writers, nevertheleſs, have advanced a contrary opinion, and one in particular*, not only denies the neceſſity of abſolute reſt, and an hori-

* See Underwood on Ulcers.

zontal poſition of the leg, but even attributes the frequent return of ulcers to the practice of curing them under thoſe circumſtances. The great ſubſtitute for reſt, and an horizontal poſture, is a bandage of thin flannel, ſo applied as to produce an uniform degree of preſſure from the ancle upwards to the knee. This, by embracing the debilitated parts, contributes to benefit the ulcer not leſs than the relative confinement of the muſcles of the limb, which the patient uſes more like an artificial leg than a real one, ſince the whole moves forward together in walking, whilſt the muſcles, with regard to *each other*, are nearly quieſcent. The injurious tendency of an upright poſture, being alſo obviated by the uſe of a bandage, may be accounted for upon a principle by no means irreconcileable to that from which the practice openly profeſſes to deviate. For what is the effect of an horizontal poſition of the limb but that of taking off the perpendicular preſſure of the blood upon the weakened veſſels? What is the effect of an elaſtic roller covering the whole leg, but that of ſuſtaining the veſſels, and enabling them, without injury, to ſupport that preſſure? In the former caſe, we hinder the preſſure, in the other, we apply a reſiſting body, which enables the parts to bear it.

To the advantages of the latter ſyſtem may be added, the general benefit which the conſtitution muſt derive from exerciſe, the want of which, in the other caſe, diſpoſes the patient to general, and therefore to a certain degree of local, debility, prejudicial to the end we have in view. The circulation is alſo ſaid to be invigorated in the limb, and the proceſs of reſtoration forwarded, by the uſe of a bandage; but this ſubject we ſhall diſcuſs in another place.

§ 2. *Of Internal Remedies.*

In the treatment of ulcers that are merely *local,* it is not to be ſuppoſed, that the uſe of internal remedies can be very ſtrongly indicated.—Yet, in caſes where not only local, but general debility, prevail, a very ſalutary degree of vigour may be imparted to the conſtitution, by the exhibition of bark, and other tonic remedies. To the Peruvian bark, indeed, ſome have attributed good effects, independent of its bracing quality; and have expected from its uſe, a ſort of ſpecific operation in amending the diſcharge of an ulcer, and leſſening its irritability. But, the beſt atteſted caſes do not ſeem to prove, that any thing

beyond the virtues of a tonic, can juſtly be attributed to the bark.

It is now a conſiderable time ſince practitioners have proved, by very full and repeated trials, the total inefficacy of ſome other internal remedies, which it was the faſhion of the day to extol. Among theſe particularly was nitre; puſhed, as it were, into vogue by bold aſſertions in its behalf, and ſupported in its pretenſions to infallibility by the apparently *secondary* aid of a bandage, which, no doubt, had an honeſt and excluſive claim to the meritorious character attempted, for obvious reaſons, to be attached to its companion.

Little more than this can be ſaid in favour of an internal remedy, uſhered into practice with ſtill greater formality than the preceding, and with favourable atteſtations even from men of high reputation in the profeſſion, to wit, hemlock. Whatever we may be inclined to grant to this remedy, when employed in the treatment of ulcers manifeſtly depending on a particular ſtate of the conſtitution, we can, by no means, allow it any importance in the treatment of an ulcer merely local in its nature. It may, indeed, by leſſening the irritability of the whole ſyſtem,

ameliorate the ſtate of the ulcer in that ſingle particular; yet, even that effect muſt be trivial when obtained by ſo circuitous a channel, and may be more advantageouſly attempted in the way of a topic, in which, indeed, it is entitled to ſome ſhare of approbation, as we ſhall have occaſion to mention hereafter.

It is almoſt ſuperfluous to dwell on this ſubject, ſince, certainly, we are poſſeſſed of few, if any, internal remedies, that are efficacious in the kind of ulcer of which we are now treating. Yet, if facts, not reconcileable to any exiſting theory, poſſeſs any value, we may venture to mention the internal uſe of the *hydrargyrus muriatus*, a remedy which, in ſome inſtances, has certainly been of ſervice, and eſpecially when adminiſtered at the ſame time with the Peruvian bark.

There is another internal remedy, indeed, which applies to thoſe ulcers common in the legs of women, whoſe menſtrual evacuations have been ſuſpended; and that is iron. This, it muſt be confeſſed, is not merely uſeful, but indiſpenſably neceſſary; as tending to remove the apparent cauſe of the ulcer, which, in general, cannot be cured till the menſtrual evacuations are re-

ſtored. In the view of counteracting general debility too, this remedy is at leaſt equal to any other tonic. The vitriolated iron is, perhaps, the moſt eligible preparation of that metal, and it may be very properly adminiſtered, at the ſame time, with the bark.

The laſt claſs of internal remedies, of which it is neceſſary to ſpeak, is the cathartic. In rural ſituations, where ſurgeons often have to do with vigorous ſubjects, prone to inflammation, the neceſſity of evacuating the inteſtines occaſionally, is clearly indicated. Hence, when the ſtate of the patient's general habit, and of the ulcer, is oppoſite to that of debility, it is an advantageous practice, to adminiſter occaſional doſes of neutral ſalts. But many of ſuch caſes are more effectually relieved by *keeping* the bowels in a lax ſtate, by daily doſes of a ſolution of ſalts, to each doſe of which, a quarter, or one-ſixth of a grain of tartarized antimony, is joined.

It muſt not, however, be ſuppoſed, that, becauſe the uſe of cathartic remedies is occaſionally beneficial, that their adminiſtration is to be encouraged as an indiſcriminate practice. Experience certainly proves the contrary; and even,

that in many inſtances, they are hurtful, by inducing both general and local debility.

While on the ſubject of internal remedies, there can be no impropriety in our adding a few obſervations on the ſubject alſo of diet, which many ſuppoſe ſhould be conſidered as one of the claſs. As errors in diet, more particularly the inordinate uſe of ſpirituous liquors are juſtly ranked by many amongſt the cauſes of ulcerated legs, or, at leaſt, among the moſt material impediments to their cure, it is very natural to ſuppoſe, that ſome ſtrict regulation in the choice of our food, muſt be of importance where an ulcer is to be treated*. Much, however, as this may ſeem conformable to probability, it is certainly, by no means, agreeable to experience; for the moſt minute attention, in avoiding what has been thought pernicious, has, in no inſtance on record, produced ſuch effects, as to render the diet of patients with ulcerated legs, an object of conſideration, farther than the preſerving it within the line of ſtrict temperance.

* No rule is without its exceptions. My friend, Dr. Cheſton, informs me of the caſe of a woman, once under his care, at the Infirmary, whoſe ulcers could not be brought into a healing ſtate till ſome ſtimulus was applied to her ſtomach, by way of equivalent for the loſs of her dram bottle, to which ſhe had been long devoted.

Where we have to contend with inflammation, indeed, we well know the propriety of uſing diluents, and avoiding animal food, and ſtimulants of every deſcription; and where debility prevails, we can decide, with equal facility, on the impropriety of a low regimen:—beyond this our obſervations degenerate into mere trifling; and we uſeleſsly deprive our patients of many uninjurious gratifications of the appetite by the reſtraints we impoſe.

§ 3. *Of the conſtitutional complaints which ſometimes accompany ſimple ulcers on the legs.*

It ſometimes happens, that patients who have ulcerated legs, are at the ſame time troubled with phthiſical ſymptoms, as a cough, night-ſweats, and hectic paroxiſms.

In theſe caſes, however the ſtate of the ulcer may ſeem to demand invigorating remedies, and a generous diet, we muſt be extremely circumſpect in our uſe of ſtimulants, either in the form of aliment or medicine. Iron, it is probable, will be improper, ſince the irritability is greatly increaſed in ſuch patients. So, indeed, will ſtimuli of almoſt every deſcription; and even the bark, which is too apt to increaſe affections

of the cheſt, will require to be employed with the utmoſt circumſpection.

In a caſe of this ſort, however, we may very properly give gentle emetics, repeated at proper intervals, and followed by warm purgatives.—As the ſtomach never fails to be a good deal affected, the former are attended with the beſt conſequences; and will, in general, ſo far remove the cough, as to enable us to adminiſter with ſafety ſome weak preparation of the bark, with the vitriolic acid, to abate the night ſweats.

Country air is, above all things, material; for it is, in general, the want of a pure atmoſphere that ſo commonly occaſions hectic ſymptoms in patients ſituated in crowded hoſpitals and workhouſes. In ſuch, where the general health is much impaired, ulcers, however carefully attended to, either remain ſtationary, or become worſe; ſo neceſſary is it, to enſure any degree of ſucceſs in their treatment, that the patient ſhould have, at leaſt, a tolerable ſhare of conſtitutional energy.

§ 4. *Of Topical Remedies in general.*

With regard to topical applications for common ulcers, it is impoſſible to lay down any certain rules for the ſelection of them. The ſurgeon who imagines he can cure all ulcers by a dreſſing of one particular kind, or by any particular manner of applying it, will find himſelf egregiouſly miſtaken.

In treating an ulcer with topical remedies, we ſhould have two intentions in view:—1ſt. Whatever be the condition in which we find an ulcer, to bring it into ſuch a ſtate as ſhall diſpoſe it to heal. 2dly. To heal or cicatrize it permanently.

In purſuing the firſt intention, we ſhall find ourſelves occaſionally very much at a loſs. In a great many caſes, it will be found neceſſary to deſtroy the old ſurface of the ulcer, and to expoſe a new one; and, it is with this view, that an author, who has profeſſedly written on the ſubject, and, before him, the excellent Wiſeman, have recommended *filling up* the ſore with red

nitrated quickſilver*, and repeating this proceſs till a clean and healthy ſurface is exhibited.

Where the ulcer is of an inconſiderable ſize, this practice, no doubt, is to be commended; but, in very large ulcers, or ſuch as extend over the greater part of the leg, of which we ſee many inſtances, this plan cannot be purſued.

Patients of the poorer claſs, amongſt whom, unhappily, ulcers of the legs are moſt prevalent, having no leiſure to attend to the means neceſſary for their cure, uſually have their ſores in a filthy and putrid ſtate. This it is obviouſly neceſſary to remedy, by ſoaking and waſhing the parts in warm water; by the application of lint once a day, or oftener, according to the quantity of diſcharge; and by a conſtant renewal of the cloths and bandages.

* The author alluded to is Mr. Underwood; who certainly has a fair claim to the merit of having revived the favorite practice of Wiſeman, in the application of red precipitate to ulcers; and alſo that of uniform preſſure over the whole of the limb. Wiſeman, however, preferred a laced ſtocking to a bandage, and certainly, where the application of preſſure is to be made by the patient himſelf, a laced ſtocking is more likely to anſwer the end, becauſe leſs likely to be put on improperly than a bandage; though, in the hands of a ſurgeon, the caſe may, perhaps, be otherwiſe.

Cleanlineſs is one among the moſt important advantages of *fomenting* ulcers; though, in this form, it is certain many topics may be applied in a curative point of view. Where an ulcer is inflamed, we may apply emollients; where it is in an irritable ſtate, we may uſe ſedatives, as a fomentation of poppies; where it is putrid, we may uſe decoctions which have a tendency to reſiſt putrefaction; and where an ulcer is of the languid deſcription, we can apply ſtimulants. Warm fomentations have a good effect, not on the ulcer alone, but likewiſe on the ſurrounding parts which are ſoftened and relaxed, and the circulation promoted through the thick and callous edges which uſually encompaſs thoſe ulcers that have exiſted long. But, on the other hand, there are inſtances where this relaxing effect is diſadvantageous, as where the ulcer is diſpoſed to fungate, and its ſurface appears rather redundant, and of a looſe texture. Theſe, it is highly neceſſary that the ſurgeon ſhould diſtinguiſh; ſince ſuch will, probably, be more benefited by applying cold water than hot.

Another thing that ought, perhaps, to be regarded, is the degree of heat which is moſt ſuitable to the deſign of a fomentation. Though

this circumſtance is not attended to, but the practice too commonly followed is that of applying it as *hot* as the patient can bear, the deſcription of ulcer of which we laſt ſpoke, and, no doubt, many others, cannot but be moſt materially injured by ſuch a kind of application. It is probable too, that the irritable ulcer would be particularly liable to ſuffer by it, for the degree of heat, acting as a violent ſtimulant, muſt, of courſe, be diſadvantageous where every thing ſtimulating is contra-indicated. It is not neceſſary to dwell, indeed, on this ſubject, ſince the bare mention of it will be ſufficient to put the ſurgeon on his guard, and to induce him to caution thoſe to whoſe management this part of the treatment of an ulcer belongs, to act only as circumſtances require.

By the ſame rule which directs us in the choice of the materials for a fomentation ſhould we be guided alſo in directing the ingredients for a *poultice*; which is another very material agent in the treatment of ulcers. Where the intention is that of a ſimple emollient, a bread and water poultice, with a little linſeed meal, is ſufficient.—Where irritability is to be diminiſhed, a poultice, prepared with the decoctions of poppies, or of

hemlock, with bread and linſeed, is the moſt eligible.—Where ſtimulants are wanting, we have the cataplaſma cumini, and other ſimilar remedies in abundance; and ſo on, as the judgment of the ſurgeon will moſt naturally dictate*. One thing, however, is to be obſerved, that theſe fomentations and poultices, though evidently uſeful on their firſt application to ulcers, ſhould not be continued too long. When once the effect of relieving the pain of the ulcer, and cleanſing it, is obtained, unleſs their farther continuance be plainly indicated, they muſt be left off; for, if continued longer than is requiſite, they either bring on debility, or increaſe it if already exiſting, and ultimately impede the cure. If, after the uſe of them, the ſore ſhould appear florid, and full of healthy granulations, nothing more will be neceſſary, perhaps, to complete the cure, than a ſlight inactive ſuperficial dreſſing, and the uſe of a bandage. In the courſe of the treatment, we need never be anxious to wipe the ſurface of the ſore, particularly if the diſcharge it yields be of a favorable kind; but care ſhould, nevertheleſs,

* I do not think it neceſſary here to point out the particular manner in which fomentations and poultices are to be prepared. For that, it is ſufficient to refer the reader to the *Pharmacopæia Chirurgica*, a work which includes every formula of this ſort than can be deſired.

be taken to keep the healing edges perfectly clean. A white ſcurf, or cruſt, uſually accumulates round theſe edges, which is formed of the coagulable lymph of the blood. This, if left to itſelf, will form layer upon layer, till a callous edge is produced, and immediately under it a hollow kind of ulcer.

To avoid theſe conſequences, we ſhould every day carefully, yet with as little force as poſſible, ſcrape off this white matter, either with a ſpatula, a probe, or ſome ſuch inſtrument; being cautious in ſo doing, not to injure the tender ſkin which we ſee advancing over the granulations.

To an ulcer which makes this favourable ſort of progreſs, it is by no means neceſſary, or proper, to uſe any topic poſſeſſing active properties. Where healthy granulations ſpontaneouſly appear, and fill up the cavity of the ulcer, no ſtimulus can be wanting, or would be proper; and where, after that is accompliſhed, the ſkin is ſeen to advance gradually over the ſurface, no application can be neceſſary but a layer of dry lint, ſhaped nicely to the dimenſions of the granulating ſurface, to abſorb the diſcharge, and an outer dreſſing of ſome ſimple ointment, to prevent its

edges from adhering when a renewal of the dreſſings becomes neceſſary.

It may not be amiſs to conſider, in this place, what are the circumſtances which ought to guide us in determining at what particular periods the dreſſing of an ulcer requires to be repeated. The cuſtoms of ſurgery have, in ſome degree, decided this point in favour of the repetition of freſh dreſſings *once* a day, and in ſome caſes *twice*; but ſcarcely ever has it been the practice to renew them oftener. The greater, or leſs frequency of the ſurgeon's viſits have, indeed, had ſome influence in this reſpect; and the patient not uncommonly conſents to ſuffer ſome hours of inconvenience rather than take off his dreſſings at any other movement. That this rule has both its advantages and diſadvantages is extremely obvious; but let us enquire how far a general rule may be put in practice, with regard to the renewal of our applications to an ulcer.

There is ſcarcely any inſtance, in which an ulcer, however healthily diſpoſed, will not after long remaining undreſſed become more or leſs uneaſy. The matter diſcharged, though of a quality the moſt favorable that can be wiſhed,

will acquire irritating qualities barely from the circumſtance of its being pent up. The natural heat of the part diſpoſes it to putrefaction, or ſome ſpontaneous chemical change, by which it becomes capable of acting on the ulcer that produced it, greatly, perhaps, to its injury. In ſuch a caſe, it is likely that every ill conſequence would be obviated by renewing our applications at the cuſtomary periods; but, where an ulcer is ſo large as to yield a good deal of pus; or where, whether large or ſmall, its diſcharges are thin, offenſive, and irritating, the inconvenience of retaining the dreſſings for too many hours together cannot fail of being conſiderable.

Perhaps there is no ſurer guide to direct us in theſe reſpects, than that obvious one, of the patient's own feelings; at leaſt it is certain, that the operations of nature are not to be calculated by the movements of the clock. An ulcer healthily diſpoſed not only forbids our interference, but univerſally reſents it when prematurely exerciſed. The patient's feelings cannot in that caſe be called in queſtion, as a juſt indication of the time when our applications ſhould be renewed. An uneaſy diſpoſition in the part, tells us

what we ſhould do, and till this happens, it is plain we ought to do nothing.

This queſtion, however, applies to every deſcription of ulcer; but there may be ſome, where the pain is of neceſſity brought on by the remedies applied, or is an exiſting, and perhaps, unremitting ſymptom, connected with the ulcer itſelf. Under ſuch circumſtances, we are warranted in forming a judgment for ourſelves as to the proper periods when freſh dreſſings ſhould be applied. If the patient has an interval of eaſe, it ſhould, by no means, be interrupted; for there is no aſſiſtance which *we* can afford that will compenſate for our officiouſneſs at an improper moment.

For the moſt part, where there is much pain and irritation, there is a proportionate *quantity* of diſcharge, and where that is the caſe, the nature of our dreſſings ſhould either be ſuch as to abſorb the fluids as faſt as they are formed, or the renewal of freſh dreſſings muſt be more frequent.

It is neceſſary, in fact, that the dreſſing for an ulcer, particularly a large one, ſhould be *pervious* to the matter diſcharged from it. For this

reaſon, there is no outer dreſſing that can be uſed more proper than towe; although, in the practice of ſome ſurgeons, it may appear, and certainly is, more coarſe and inelegant than lint. It has, nevertheleſs, the advantage of letting out the diſcharge more readily than the latter, and of ſuffering it to paſs into the cloths which ſurround the limb, which may be eaſily renewed when freſh dreſſing is not adviſeable.

Every ſurgeon muſt have had occaſion to remark the importance of giving the diſcharge from an ulcer a free paſſage. Nothing, indeed, is more common, than to ſee an ulcer converted into a ſort of iſſue, by the practice of confining the diſcharge; which is commonly done, firſt, by applying an outward dreſſing which is impervious, and ſecondly, by binding this ſo firmly on, that the matter can have no outlet, but muſt act upon the ſore in the ſame way as a pea does in an iſſue; with this difference, indeed, that on every renewal of the dreſſing, the ſore muſt become larger and larger, whilſt, in the other caſe, it is confined to certain dimenſions. Outer dreſſings of linen rag, ſpread with any tenacious ſalve or ointment, are particularly exceptionable in this view; the matter, indeed, which cannot find its way through the pores of the linen, at-

tempts to force itſelf between the plaiſter and the ſkin, but when a bandage is employed at the ſame time, its eſcape, even by this means, is prevented; and thoſe conſequences take place of which I have juſt now made mention.

The foregoing circumſtances evince that the *manner how* is not leſs important than the *time when* our medicinal remedies ſhould be applied to ulcers; and what we ſhall now mention, will be a further confirmation of this. The general treatment of theſe is, perhaps, in nothing more defective than in reſpect to the ſmall degree of care and attention employed in adjuſting the different applications nicely, and with a mechanical ſort of exactneſs, to the diſeaſed part, without which the beſt choſen remedies will be found to anſwer no great purpoſe. In fact, there may reſult from an error in this reſpect, effects poſitively injurious, ſince it commonly happens, that different remedies are required to different parts of the ſame ulcer, and if theſe are not nicely accommodated to the ſituations for which they are deſtined, very eſſential miſchief may be produced.

But if it be of conſequence to avoid a ſlovenly treatment in theſe reſpects, ſtill more is it of importance to attend minutely to the mode of ap-

plying the bandage, which, though an admirable remedy in judicious and careful hands, is often the cauſe of conſiderable miſchief to ulcers.

The preſſure applied to the leg, ſhould be extended over the whole of its ſurface, and ſhould likewiſe be *equable* in every part. If a bandage be ſo applied that it ſhall ſtrongly bind the limb in one part, and not ſo in another, the conſequence muſt be, that the blood will be unequally diſtributed over the ſurface; the circulation being impeded in ſome parts, whilſt in others, it is too much accelerated. Thus, if any ſingle turn of the bandage be drawn tight over the ulcer, the conſequence will be pain and irritation; and if the upper turns be all of them tight, whilſt the lower ones are ſlack, the blood will be arreſted in the veins as in the uſe of a ligature in bleeding.

It is to the want of accuracy in applying the neceſſary remedies to ulcers, together with the inſufficient, or perhaps, injurious uſe of the bandage, that we are to attribute the very little good that is done by furniſhing the patient with remedies to uſe himſelf. For once that he dreſſes the part properly, he fails to do it ten times; and the re-

ſult is, that the cure does not proceed; nay, it is well if the progreſs made be not that of *ulceration*. To theſe impediments we may likewiſe add, the repeated, and ſometimes rapid, changes which take place in different parts of the ſame ulcer.—Theſe neceſſarily call for a correſponding change in the applications to be employed, but of courſe, are not attended to by the patient, who, having nothing to guide him but the general inſtructions given him by the ſurgeon, goes on from day to day in the uſe of one particular plan, which, though perfectly ſuitable at firſt, has now become uſeleſs at leaſt, if not detrimental.

As the application of dreſſings, and of the bandage, as far as the *manner* of doing them is concerned, uſually falls under the management of gentlemen ſcarcely yet initiated in chirurgical buſineſs, it is too common to ſee them haſtily, and of courſe, inadequately, performed; and it is particularly unfortunate, that the hurrying way in which ulcers are dreſſed in the London hoſpitals, affords the ſtudent ſo few opportunities of convincing himſelf, how eſſential to the cure of an ulcer is a *deliberate, neat, and ſyſtematic way of applying the neceſſary remedies.*

Having thus ſpoken generally of topical applications for ulcers, we ſhall now ſpeak of their ſymptoms.

§ 5. *Of the Symptoms of Ulcers.*

1. In treating of the ſymptoms of ulcers, we ſhall begin with *pain*; as that is, in many caſes, one of the moſt troubleſome, both to the patient and the ſurgeon. Some ulcers are in a ſtate of entire indolence, (and are not attended with any pain), whilſt others are ſenſible in the higheſt degree.—It is common to attribute this to the greater or leſs degree of inflammation affecting the ulcer; but there is reaſon to believe, that this is a miſtaken notion, ſince it is by no means an unuſual thing to find the pain of an ulcer relieved by thoſe means which would augment inflammation, as by the uſe of ſtimulants, or the application of a very tight bandage. It ſeems, therefore, rather to ariſe, in many caſes, from a peculiar flabbineſs, want of tone, and conſequent increaſe of irritability in the part.

In other inſtances, although there appears no material degree of inflammation, we find it ex-

tremely difficult to overcome this ſymptom in an ulcer; and, as there exiſt no particular appearances to direct us to the cauſe, we are under the neceſſity of trying different remedies one after the other, till we hit on that, which, in the language of the patient, *agrees with* the ſore.

In the treatment of this ſymptom in ulcers, beſides the uſual warm and moiſt applications, we ſhould ſeek to afford relief by the topical uſe of opium. We ſhould mingle it as well in our fomentations as in the dreſſings applied directly to the ulcer. Sometimes the tincture of opium, bruſhed over the ſore with a camel's hair pencil, is of ſignal ſervice; notwithſtanding its firſt effect is to ſtimulate, and give violent pain. The addition of a very ſmall proportion of camphor has, likewiſe, in many inſtances, contributed to the object in view; but, in the uſe of this remedy, it is always to be obſerved, that its acting as a ſedative, or a ſtimulant, (in both of which characters its powers are very conſiderable), depends entirely on the proportions being nicely adapted to the ſenſibility of the part. The *cataplasma natri vitriolati**, a remedy employed for another purpoſe, by Dr. Kirkland, will ſometimes anſwer

* See Pharm. Chirurg.

this intention, as will ſometimes ſprinkling the part with a powder of the dried leaves of hemlock, or applying that narcotic vegetable in the different forms of a bath, fomentation, or poultice.

Sometimes, on the other hand, cold applications to the ulcer will ſucceed beſt, as the ſolutions of acetated lead, muriated quickſilver, vitriolated zinc, &c. Bruſhing the ſore with a weak ſolution of nitrated ſilver will often remove the pain, by exciting a new action in the part; as will alſo, on the ſame principle, a ſolution of arſenic, in the proportion of one grain to a quart of water, the liquor being filtered before its application is attempted. The ſolution laſt mentioned, may alſo, with great propriety, be applied in the form of a cataplaſm. Dreſſing the wound with ointments, in which the ſtimulating gums or quickſilver enter as ingredients, have alſo been attended with advantage: but it would be an endleſs attempt to enumerate the various remedies, which, on the principle of exciting a *new action* in an ulcer of the painful deſcription, (a principle, on which, in the greater number of caſes, relief can alone be afforded), have been in uſe among practitioners, and employed according to exiſting circumſtances.

2. Another ſymptom ſometimes attending ulcers is a *sinus*, from whence, ſome ſurgeons denominate an ulcer in which this appearance takes place, a *sinuous* ulcer. There may exiſt one or more of theſe ſinuſes in the ſame ulcer, and they may be diſcovered by preſſing the adjacent parts, which will occaſion the matter to flow out, ſo that their extent may afterwards be examined by the introduction of a probe.

We have already obſerved, that theſe ſinuſes are ſometimes occaſioned by the accumulation of coagulable lymph on the edges of a wound, and that they may be prevented from taking place, by daily ſcraping off the white matter with the edge of a probe, or any other dull inſtrument. When the ſinus has exiſted long, or is completely eſtabliſhed, the cure muſt depend on attending to the ſame rules as are uſually obſerved in treating thoſe ſinuſes which accompany an abceſs.—A compreſs may be applied if the ſinus be ſuch as to admit of being acted upon by ſuch a remedy; otherwiſe, inciſion, a ſeton paſſed through, or a counter-opening, may be attempted; and one or other of theſe means will, in general, prove ſucceſsful.

3. If, by injudicious management, or a long continuance of the complaint, the ſinus ſhould have acquired a degree of hardneſs, it is then degenerated into what we call a *fiſtula*, and the ulcer then is termed a *fiſtulous* ulcer. In this caſe, the moſt efficacious treatment is, to lay it completely open by an inciſion; but, if we are rather induced to try the effect of compreſſion, the calloſity muſt firſt be got the better of, and this is only to be accompliſhed by injecting ſtimulating liquids, as tincture of cantharides diluted with water, or a pretty ſtrong ſolution of muriated quickſilver, &c. Or it may be attempted by introducing a doſſil of lint, firſt greaſed with ſome ſimple unguent, and afterwards rolled in red nitrated quickſilver: or, if a ſeton be uſed in this caſe, that alſo muſt be covered with the ſame, or ſome other corroſive preparation.

The effect of theſe applications is to deſtroy the internal ſurface of the fiſtula, or, at leaſt, to excite ſuch a degree of inflammation and ſuppuration in it, as will encreaſe the diſcharge, overcome the hardneſs, and diſpoſe the ſurface to throw out healthy granulations of fleſh ſufficient to fill up, and finally conſolidate the cavity.

4. Another ſymptom, which it is neceſſary to notice as attendant upon ulcers, is the *callosity of the edges*, from which circumſtance, ſome writers have given theſe ulcers the name of *callous ulcers*. To guard againſt this ſymptom, it is ſtill more important than in the laſt inſtance, to remove the coagulable lymph which collects on the edges. But, notwithſtanding every effort of this ſort, hard edges will ſometimes take place in ulcers; and when they do, they oppoſe a moſt obſtinate reſiſtance to the progreſs of the cure.

In general, a very effectual way of ſoftening them, is, to rub them with unguentum hydrargyri, prepared of a double ſtrength to that propoſed by the College; or, what may anſwer ſtill better, is the applying it by way of a plegit, over the dreſſings covering the ſore, taking care that it is made to come in cloſe contact with the edges. M. le Dran ſtrenuouſly adviſes ſcarifications to be made all round the ulcer, at certain diſtances, and penetrating completely through their ſubſtance. Theſe, he adviſes to be made every fourth day, till the wound is brought into a proper ſtate; and he aſſerts, that, in the courſe of his practice, this method never failed him.—But, there are few patients who are willing to

ſubmit to this method; and indeed, there is reaſon to believe, that the deſtruction of the callous edges, by means of ſome cauſtic application repeatedly applied, will anſwer equally well.—The parts may be well rubbed with nitrated ſilver every day; or, if that prove inſufficient, kali purum may be cautiouſly applied; or that old-faſhioned, yet uſeful cauſtic, butyrum antimonii, the liquid form of which renders its application peculiarly commodious in ſuch caſes. Some one of theſe will ſcarcely fail to counteract this troubleſome ſymptom effectually; whilſt proper remedies continue to be applied to the ulcer itſelf, to diſpoſe it to granulate.

We muſt not quit this ſubject, however, without mentioning another expedient which has been uſed to reduce the callous edges of ulcers. This method is, by applying, in ſuch a way as to *preſs on the edges only*, a piece of ſheet lead, ſhaped in exact conformity to the figure of the wound, and ſecured by a bandage. A conſiderable degree of calloſity in the parts may certainly be overcome by this ſimple method, which, in ſlight caſes, at leaſt, deſerves to be had recourſe to in preference to more violent expedients.

5. It has been obſerved by moſt writers, that that kind of ulcer which is diſtinguiſhed by callous edges, is alſo attended with a varicoſe ſtate of the veins of the whole leg. Theſe varices not only impede the cure, but are likewiſe apt to occaſion a return of the ulcer, and they ſometimes burſt, and produce a very troubleſome, and even dangerous, hemorrhage. The only method of treating them is, to apply a conſtant and uniform external preſſure, either by bandage or a laced ſtocking, over the whole leg. When they happen to burſt, the hemorrhage may be reſtrained, by applying powerful ſtyptics, as oil of turpentine, &c. to the opening: or it may be neceſſary, where the bleeding happens in a patient of a very debilitated conſtitution, to cut down to the vein, and ſecure it by a ligature, as in the caſe of an artery.

As the ancient ſurgeons obſerved that ulcers of the callous deſcription uſually occurred in thoſe legs in which varices were moſt prevalent, they gave thoſe ulcers the name of *varicose*; and in this they have been imitated by many of the moderns, certainly with ſome degree of propriety, ſince ſuch ulcers cannot but have their origin in a diſeaſed ſtate of the veins of the part, however

juſtly they may afterwards deſerve the appellation of *callous.*

6. The next ſymptom we ſhall ſpeak of, as attending an ulcer, is *caries.* From this being the ſtate of the bone lying immediately beneath an ulcer, authors have diſtinguiſhed the latter by the name of the *carious* ulcer. It is ſeldom, however, that the ulcer, in ſuch a caſe, is to be conſidered in any other light than as a ſecondary affection; and a proof of this is, that its appearance is not, in general, indicative of a want of vigour, but rather that of too great luxuriancy and redundance of granulation; nor does it, in general, fail to get well, whenever the exfoliation of the diſeaſed bone is completely effected.

Many ſurgeons, however, incline to an opinion, that the ulcer, in this caſe, is the cauſe, and not the conſequence of the caries, and that, happening to take place on a part where little or no muſcular ſubſtance intervenes between the bone and the ſkin, as on the ſhin bone, the acrid matter finds its way to the perioſteum, and thence the caries is eſtabliſhed. From every enquiry, however, that I have been able to make with regard to the origin of this complaint, I have found

reaſon to think differently. The cauſe of this kind of ulcer has, in moſt caſes, proved to be ſome violence done to the part; which, whilſt it produced the ulcer, laid alſo the foundation of the caries. In other inſtances, the bone has evidently been the firſt affected; and the ulcer produced, has reſulted from the formation of matter upon or near to its ſurface. This, indeed, has not been uniformly the caſe; but ſufficiently ſo to juſtify the general ſuppoſition I have adopted, that the ulcer denominated carious is the effect of a primary affection of the bone, and is kept up by the irritating proceſs going forward beneath the ſurface.

But it is of much leſs conſequence to be able to decide on this point, than to poſſeſs ourſelves of the means of diſtinguiſhing, when this ſpecies of ulcer is offered to our examination, whether the bone beneath be really carious or not; for, on this circumſtance depends the plan of treatment which it may be prudent to adopt, as well as our proſpect of finally ſucceeding in the cure of the ulcer.

On the firſt view of an ulcer covering a carious bone we are generally ſtruck with the prominent appearance, not only of the ulcer itſelf,

but of the whole ſurrounding parts, which are, as it were, lifted up by ſome ſolid ſubſtance beneath; though, at the ſame time, we perceive deepneſſes, and granular irregularities in ſome parts of the ulcer itſelf. Theſe hollow parts are commonly ſeen filled with the diſcharge, which is of a blackiſh purulent appearance, and of a very putrid ſmell. Between theſe ſpaces it is ſometimes practicable to paſs a probe, the examination with which is often the moſt ſatisfactory and deciſive teſt of the exiſtence of a caries of the bone that we can deſire. The diſeaſe, however, cannot always be aſcertained by this means; and we are left to judge, by the concomitant circumſtances, whether this really be the fact or not.

Among the appearances which characteriſe this ſpecies of ulcer, not the leaſt equivocal is the peculiarity of colour and looſe texture of the new-formed parts. The granulations, inſtead of wearing a florid and healthy appearance, are dark and approaching to a liver colour; and the healthy edges, if any can be diſtinguiſhed, have a remarkable blueneſs.

With regard to the treatment of the carious ulcer, it muſt evidently depend on the treat-

ment of the caries; and that is a ſubject not immediately under our notice at preſent. There is no doubt but, in many inſtances, the healing of the ulcer has, without this, been accompliſhed, though the cure has not afterwards proved very laſting.

The ſkin may, by the uſe of common remedies, reſt, &c. be prevailed on to cloſe the wound; but the irritation ariſing from the deeper ſeated miſchief will not long ſuffer it to remain ſo; nor indeed is it of much advantage to the patient that it ſhould, ſince the inconvenience produced by the carious bone is not much more conſiderable with than without the ulcer.

7. We ſhall now take notice of a ſymptom attendant on ulcers, which has not been, in general, noticed by writers on this ſubject. It is peculiar indeed to hoſpitals, few if any inſtances occurring of it, as far as I have been able to learn, in the private practice of gentlemen of the profeſſion. It uſually happens in thoſe ſimple ulcers that are the conſequence of large operations. When the healing of the ſore is nearly completed, the patient, perhaps, will be ſuddenly attacked with violent pain in the part.

This is ſucceeded by a phagedænic ſlough, beginning on the ſore, and gradually increaſing, till the whole wound, however great its original extent may have been, is again laid open; nay, it is not uncommon for the ſloughing to extend to the ſound parts, where no wound exiſted before.

When the firſt ſlough has ſeparated it is ſucceeded by many others, and accompanied with a moſt abominably fetid diſcharge; and this interruption to the cure will ſometimes occur two or three different times in the ſame ſubject; or perhaps the cure cannot be accompliſhed without removing the patient into a purer atmoſphere.

There can be no doubt, from this laſt circumſtance, but that this ſymptom is chiefly, if not entirely, owing to the unwholeſomeneſs of hoſpital effluvia. It muſt nevertheleſs be conſidered, that hoſpitals, thoſe of the metropolis at leaſt, are the receptacles of half-famiſhed and debilitated perſons, in whom the diſpoſition to gangrene cannot but be much greater than in perſons who enjoy a competent ſhare of good diet, or indulge in the luxuries of the table. It may be alledged indeed, that this ſymptom is ex-

ceedingly different from gangrene, yet it cannot be denied, that it is putrid in its nature, attended by a low pulſe, and relieved by ſtimulants, opium, and the bark, all remedies peculiarly demanded where a part exhibits a diſpoſition to gangrene.

8. The laſt ſymptom on which it is neceſſary we ſhould remark, is one that is very frequently obſerved in old ſore legs. We find the limb in many of theſe caſes much ſwelled, and filled with indurated tumors or lumps in one or more parts, which will not always be reſolved by the diſcharge from the ulcer. This ſymptom is in ſome inſtances marked with a peculiar degree of obſtinacy, and occurs now and then alſo in the patient's other leg where no ulcer exiſts.

Sometimes, in breaking theſe hardneſſes, the application of a ſtrong volatile ſoapy liniment is of ſervice; as is ſometimes electricity, and the inunction of quickſilver ointment well impregnated with camphor. Incloſing the whole leg (where there is no ulcer) in a mercurial plaiſter is a good remedy, ſince it acts not only by exciting the abſorbent veſſels, but alſo by confining the perſpiration. Upon the latter prin-

ciple, the application of oilſkin has been recommended by Mr. Underwood, and no doubt deſerves a trial. But, notwithſtanding the united aſſiſtance of theſe remedies, it is not uncommon to meet with caſes in which this ſymptom cannot be got the better of, but the parts will remain in a ſtate that continually threatens farther injury, and excites uneaſy apprehenſions in the mind of the patient.

PART II.

Of Ulcers in the production or existence of which the constitution participates.

HITHERTO we have conſidered an ulcer only as a topical diſeaſe, independent of any vice in the ſyſtem; we ſhall now ſpeak of thoſe ulcers in which the conſtitution evidently participates.

The different kinds of virus which occaſionally prevail in the ſyſtem, and which are capable of producing ulcers of a ſpecific character, are five; to wit, the SCORBUTIC, the VENEREAL, the SCROFULOUS, the PHAGEDÆNIC, and, laſtly, the CANCEROUS. Of theſe we ſhall ſpeak in their order, and ſomewhat more in detail of the three laſt, as forming the moſt intereſting part of our ſubject.

§ 1. *Of the Scorbutic Ulcer.*

ALTHOUGH it ſcarcely can be expected to happen, that ſo high a degree of ſcurvy can take place in perſons reſiding on land as occurs in thoſe who engage in long voyages, we nevertheleſs meet with many ulcers, which evidently bear the ſcorbutic character, evincing, if not a confirmed ſcurvy in the habit, at leaſt a very ſtrong tendency to that complaint.

This kind of ulcer may be very readily diſtinguiſhed from others of a different deſcription by theſe peculiar external ſigns, as well as by the general ſcorbutic ſymptoms, which, on enquiry, are generally found to affect the patient. Such are, a particular languid ſtate of the circulation of the blood on the ſurface of the body, an offenſive breath, ſoft, ſpongy, and bleeding gums, high coloured and irritating urine, &c.

The ulcer itſelf is very apt to bleed on being ſlightly touched; its colour is browniſh; its ſurface of a looſe unconnected texture, frequently ſhooting out fungous granulations, which alſo bleed on the gentleſt force that can be applied to

them. The ſkin round the ulcer is of a livid, purple, or black hue; and if there be any ſpots, as there frequently are, theſe are all of the ſame complexion. The diſcharge is uſually thin and ſanious, and runs from the part in conſiderable quantity almoſt immediately after the ulcer is dreſt.

It may be objected to by ſome, perhaps, that we have conſidered the ſcorbutic ulcer as one of thoſe which ariſe from a particular kind of *virus*. It is pretty generally acknowledged, however, that the ſcurvy is a diſeaſe of the fluids, and depends on the exiſtence of ſome kind of *morbid matter*, affecting the blood's texture and *purity*; and if ſo, it is a ſuppoſition that does no great violence to probability, that theſe morbid or virulent particles lay the foundation of the ſcorbutic ulcer.

The ſcorbutic ulcer is perhaps the only one in which the article of diet is a matter of deciſive importance. The cure of the ſcurvy is well known to depend chiefly, if not entirely, on the uſe of proper vegetable aliment; at leaſt, this is the caſe after long ſea voyages; and though a ſcurvy contracted on ſhore may demand a regi-

men ſomewhat leſs ſtrict in this particular than one contracted by the uſe of ſalt proviſions at ſea; yet it is, nevertheleſs, a point very material to be attended to; for thoſe means which are powerful in correcting the ſcorbutic taint in the habit, muſt, of courſe, be important in the treatment of the ulcer; and the more eſpecially, as it cannot be cured whilſt that taint remains. A milk and vegetable diet is, therefore, that from which the beſt effects are to be expected; not, indeed, to the entire excluſion of animal food, but this ſhould be of eaſy digeſtion, great nouriſhment, and neither ſalted nor highly ſeaſoned. Salt, indeed, it has been thought abſolutely neceſſary to interdict the uſe of, as having a principal ſhare in the production of ſea ſcurvy: not, however, that this is a point by any means to be admitted as indiſputable, for I am rather inclined to attribute more to the *change* which fleſh meat undergoes by *being salted*, than to the operation of ſalt itſelf on the human body. The uſe of fermented, or even of *fermenting* liquors, is alſo to be adopted, in preference to drinks of any other deſcription, on account of the fixed air with which they abound.

In the topical applications to this ſort of ulcer, every kind of unctuous, or greaſy ſub-

ſtance, is to be avoided. A poultice, prepared with rye meal, and an infuſion of malt meal, with the addition of a ſpoonful of yeaſt, is an excellent application; a conſiderable quantity of fixed air being extricated, and coming in contact with the ulcer in a ſhort time after its application. A mixture of bark and myrrh, in fine powder, ſprinkled or duſted over the ſurface, is alſo very beneficial. Poultices of carrots, or of turnips, are likewiſe good; and likewiſe the topic recommended by Dr. Lind, conſiſting of mel Ægyptiacum and mel roſæ, with a ſmall quantity of vitriolic acid.

With regard to internal medicines, in the cure of this ulcer, it may be proper to remark, that it has been cuſtomary with practitioners to adminiſter the moſt powerful remedies of the *tonic* claſs, ſuch, for inſtance, as the bark, vitriolated iron, vitriolated zinc, &c.: but as theſe were employed under a ſuppoſition which is not admiſſible, namely, that the ſcurvy is a diſeaſe of the *ſolids*, it would be inconſiſtent to dwell long upon this ſubject. In fact, we are in a great meaſure ignorant whether any internal medicines are of ſervice in the ſcurvy: but though it really is the caſe, that we know not what we ought to

preſcribe, it is at leaſt in our power to determine what we ought to interdict; and on this point we ſhall now ſay a few words.

Among the remedies, employed by thoſe who are not in the habit of enquiring into the diſtinctions by which the different ſpecies of ulcers are marked, is quickſilver. It is exceedingly common with ſuch inconſiderate practitioners to give this powerful medicine, in one form or other, in almoſt every caſe of ulcer of long ſtanding; and, among the reſt, in the ſcorbutic ulcer. Repeated experience, however, has demonſtrated, that the ſcurvy, and every diſeaſe, whether local or general, in which it partakes, is extremely liable to be increaſed, and rendered worſe by that mineral. This fact has been chiefly ſhewn in thoſe inſtances, where, in a ſcorbutic ſubject, the venereal diſeaſe has demanded a mercurial courſe, the event of which has frequently been of the utmoſt injury in reſpect to the former; at leaſt, it has been ſufficiently deciſive of the dangerous tendency of mercury in the diſeaſe we are now conſidering, and conſequently, of any local complaint that may have originated in the prevalence of that diſpoſition in the ſyſtem.

The uſe of a bandage in this kind of ulcer, (though without a ſuitable diet, &c. no leſs inſufficient to the cure than the other topics of which we have been ſpeaking), is, nevertheleſs, a material aſſiſtance where the diſpoſition to health has once begun to manifeſt itſelf. It has, at leaſt, the ſalutary effect of reſtraining thoſe looſe granulations of fleſh which are, in all inſtances, ſo redundant; and by ſupporting the weak and tender veſſels of the part, is a means of preventing that almoſt continual waſte of blood, which would occur from every ſlight friction to which the part would be expoſed if not ſo defended.

§ 2. *Of the Venereal Ulcer.*

ALTHOUGH the ſymptoms of the venereal diſeaſe, when they exiſt independent of any other affection, are ſo ſtrongly marked, that it is hardly poſſible for a ſurgeon, of any experience, to miſtake them, yet we very well know, when the caſe is otherwiſe, into what a variety of difficulties we are apt to be led, and how impoſſible it is, in many inſtances, to ſay deciſively, whether the diſeaſe we are called upon to conſider be a *venereal* one or not.

This incertitude, which attaches to ſo many of the ſymptoms of lues venerea, is in none more liable to be exemplified than in the venereal ulcer; which, though exhibiting, in ſome inſtances, a very marked, and indiſputable character, is, in others, extremely equivocal.

In this ſpecies of ulcer, we very often obſerve ſome one of the characteriſtic ſigns exiſting along with thoſe that are evidently not venereal; and we are left in doubt whether we ought, or ought not, to reſort to a mercurial courſe.

Where theſe equivocal appearances occur, it is of ſome conſequence, beſides judging of the ſtate of the ſore, to queſtion the patient as to any other ſymptom of a venereal nature that may then exiſt, or that may have exiſted at any time previous to the appearance of the ulcer. We ſhould examine whether a venereal infection had been received; whether its nature was really that of *syphilis*, or only gonorrhæal; whether the cure had been attempted by carrying the uſe of mercury to a ſufficient extent; and, laſtly, whether, after what was ſuppoſed a perfect cure, any ſuſpicious ſymptom had occurred; ſuch as a ſore throat, eruptions on the ſkin, night pains, or nodes on the ſhin-bones.

If it can be clearly eſtabliſhed, that the patient has been affected with lues; or if there be room to ſuſpect that the means uſed to eradicate it have been inſufficient; we may venture to conclude, even where the ſigns of venereal ulceration are imperfect, and accompanied with appearances that are common to other ulcers, that the diſeaſe cannot be got the better of without the introduction of mercury into the ſyſtem.—It is not, however, till after a fair trial given to the common remedies, that ſuch a plan ought to

be purſued; and the more eſpecially as this equivocal deſcription of ulcer is liable to take on a ſtill more inveterate character in conſequence of the action of mercury, and to become phagedænic. This is particularly liable to happen in open buboes; as will be obſerved in another place.

There will exiſt, however, in every ulcer of a venereal nature, ſome one or more of the following ſigns. The true venereal ſore is the moſt irregular of all ulcers; it ſeldom ſpreads out into one large ſore, but uſually appears in a number of ſmall diſtinct ulcerations, as ſhankers do upon the penis. A bar or diviſion of whole ſkin frequently runs acroſs, and divides, what would otherwiſe be a continued ulcer, into two or more. This is perhaps the moſt diſtinguiſhing mark by which we may know a venereal from any other kind of ulcer, though it has ſcarcely been noticed by writers on this ſubject. Another mark, which occurs not only in the true venereal ulcer, but often aſſiſts us to decide in thoſe of the doubtful kind, is the appearance of ſpots of a copper colour around the ſore. Theſe ſpots indeed do not always appear, but when they do, they corroborate very ſtrongly any conjectures

that may have been raiſed reſpecting the ſyphilitic nature of the ulcer.

Where there can be no doubt of the ſpecific nature of the ulcer, the uſe of quickſilver in any mode that can be brought to affect the ſalivary glands, will, of itſelf, go a great way towards effecting a cure*. Not that local applications of a mercurial and corroſive kind ſhould be neglected, for they are very material. Sprinkling the ſore from time to time with red nitrated quickſilver, or dreſſing it with any ſtimulating ointment in which a portion of that remedy is incorporated; applying verdigreaſe in the ſame manner; or, what is, perhaps, more effectual than any other method, dreſſing the ſore with lint dipped into a ſolution of muriated quickſilver; are ſteps very proper to be purſued. In a great many caſes, the ointment of nitrated quickſilver, either alone, or weakened with hog's-lard, will be found to anſwer; and it is ſometimes of uſe

* *Hydrargyrus cum Creta*, in the doſe of five or ten grains twice a day, is an exceedingly good remedy for venereal *ulcers*, notwithſtanding the opinion entertained by ſome, that it is inert. The *Hydrargyrus Muriatus*, in ſmall and long-continued doſes, is alſo a valuable medicine; but, in every deciſive venereal caſe, mercurial *friction* ſhould be had recourſe to.

to bruſh particular parts of the ſore, that appear foul and ſloughly, with a ſolution of nitrated ſilver in diſtilled water.

In thoſe caſes where the ſpecific character in the ulcer is not yet got the better of, it is fruitleſs to endeavour, by bandage or any remedy not immediately placed in contact with the ſore, to aſſiſt its cure. But, when the ulcer is brought to a ſimple ſtate by the adequate uſe of internal medicines, we ſhould then obſerve every precaution laid down for the treatment of common ulcers.

§ 3. *Of the Scrofulous Ulcer.*

The ſcrofulous ulcer is a diſeaſe not leſs manifeſtly depending on a particular ſtate of the conſtitution than any of the foregoing; although it is not by any means to be conceived that it is generated by a ſpecific virus.

When this ſort of ulcer attacks a part, we are led to diſtinguiſh it from others of a different nature by conſidering the general habit of the patient, which will uſually ſhew ſome ſigns of ſcrofula. Thus the countenance will be pale, the fibre univerſally lax, the upper lip thick, the pupils of the eyes greatly dilated, or the borders of the eyelids will appear ſore and red. The glands of the neck and under the chin may alſo be found hardened and enlarged; ſome one being much larger than the adjoining glands. This, indeed, is not uncommonly the only ſeat of the diſeaſe, the gland having ſuppurated, and afterwards become an ulcer.

When a ſcrofulous ulcer happens on the extremities, it uſually appears on the metacarpal or metatarſal bones, or on the joints of the ancle

or wriſt, on which a conſiderable thickening takes place, and extends to ſome diſtance round the ulcer, and even ſurrounds the whole joint. But in very confirmed ſcrofulous habits, it is not unuſual for the whole glandular ſyſtem to be diſeaſed. In ſome ſubjects, the vertebræ of the back and loins even become carious; abſceſſes form and break, ſometimes on one, ſometimes on both ſides of the ſpine, and theſe occaſionally become ulcers of greater or leſs extent.

There is one circumſtance of which writers on the ſcrofula have not taken notice, but which ſeems deſerving of a place among other facts; and that is, that infants and young perſons of both ſexes frequently are cut off by an high degree of ſcrofula affecting ſome, or almoſt all, of the viſcera, whilſt not the ſmalleſt external ſign of the diſeaſe has been found to exiſt. In ſome of theſe caſes the lungs, liver, ſpleen, &c. are ſtudded with ſcrofulous knots; and in others, thoſe parts are exempt, whilſt the whole meſentery is affected, glands and all, with a ſcrofulous enlargement of the thickneſs of one's hand. An inſtance of the latter kind occurred in a boy of 12 years of age, who, after an illneſs of two or three days, the hiſtory of which could not be ſatisfactorily

collected, died quite unexpectedly. On diſſection, the only appearances that could be diſcovered were thoſe juſt deſcribed; nor was there any degree of inflammation that could account for the patient's death. What is ſtill more ſingular is, that notwithſtanding the impervious ſtate of the lacteal veſſels of the greater part of the meſentery, the boy was very ſufficiently nouriſhed, and, though not remarkably luſty, he had a florid and healthy appearance, and had been accuſtomed to a laborious employment.

The cure of the ſcrofulous ulcer is chiefly to be attempted, like that of other ulcers of a ſpecific character, by combating the diſeaſe of the habit. That the ſcrofulous diatheſis is exceedingly difficult to ſubdue, we have many and reiterated proofs; and ſo little encouragement have we hitherto met with in our attempts to accompliſh it by medicine, that it would be of little uſe to detail here, with any great degree of minuteneſs, the different remedies that have been, from a very early period to the preſent time, preſcribed by medical practitioners with this intent.

Suffice it then to ſay, in the firſt place, that a multiplicity of remedies, of a *vegetable* kind,

and of that claſs popularly called *antiscorbutic*, have been ſucceſſively tried. But of theſe, none, except cinchona, mezereon, cicuta, and ſarſaparilla, have any pretenſions to efficacy, and many practitioners are inclined to deny it even to the laſt two. Many other of the narcotic plants, as well as cicuta, have been tried, and with various degrees of ſucceſs; but there is reaſon to believe, that their qualities are better adapted to the treatment of the phagedænic ulcer; as we ſhall have occaſion to obſerve in another place.

From the *mineral* kingdom we have been ſupplied with antimony, zinc, arſenic, terra ponderoſa, and quickſilver. From the firſt of theſe occaſional good effects have certainly been obſerved; and for that reaſon it has been very properly introduced by the London College into the formula, named decoctum ſarſaparillæ compoſitum. Every practitioner, however, ought to be aware of the debilitating effects of antimony, thoſe preparations of it, at leaſt, which are formed by its union with an acid. It is true, the diſeaſe ſometimes occurs in perſons apparently robuſt, and who may be ſuppoſed prone to phlegmonous inflammation. In ſuch, perhaps, the uſe of antimony may have been attended with

good effects; yet, if we decide that antimony, which is a *relaxant* of the moſt powerful kind, be a ſuitable remedy in ſcrofula, how can we conſiſtently reckon the bark and other *tonics* to be ſo? It is impoſſible, perhaps, to reaſon on this ſubject; I ſhall, therefore, only obſerve, that, of all the preparations of antimony, I have found none ſo ſuitable in this diſeaſe as the *ſulphur antimonii præcipitatum*, which ſeems to be in a great meaſure exempt from thoſe objections juſt now ſtated to exiſt againſt moſt other chemical preparations of antimony.

On the uſe of *zinc*, we can only rely in a general way as a tonic. The *vitriolated zinc*, in ſmall doſes, is entitled to its ſhare of commendation in ſome occaſional inſtances; and many ſurgeons give it in the more active form of the *flowers*, (*zincum calcinatum*).

Arſenic is not often reſorted to as a remedy in the ſcrofula, nor have the trials made of it been ſo ſucceſsful as to warrant the uſe of a remedy ſo extremely hazardous in every form. That preparation of it uſed in St. Bartholomew's hoſpital, under the name of *kali arſenicatum*, (in the doſe of one-ſixth of a grain, to adults, three times a

day), is, perhaps, the leaſt objectionable of any of the preparations of that mineral that have yet been invented.

Of *terra ponderosa*, contrary to the expectation of every one who knew the great abilities and integrity of its panegyriſt, the late amiable and excellent Dr. Adair Crawford, experience has unhappily left us nothing to ſay. It, undoubtedly, *appeared* to have ſucceeded in three moſt deciſive caſes of ſcrofula that were treated in St. Thomas's hoſpital. That the patients *got well* is moſt certain; and that under the *use* of this very active remedy, combined with the muriatic acid*. But why it has failed in every ſubſequent trial, whether by Dr. Crawford himſelf, or others who were equally diſpoſed to attribute good qualities to it, it is not poſſible to ſay. The general impreſſion, however, is, that this mineral poſſeſſes no power of checking the ſcrofulous diatheſis, as has been ſuppoſed.

Of *quicksilver*, heretofore, and even now, a favourite remedy with the bulk of practitioners who have occaſion to treat this diſeaſe, we have

* The compoſition of this remedy is deſcribed in the Pharm. Chirurg.

little to advance in the way of commendation.—On the contrary, it is moſt juſtly chargeable with a variety of miſchiefs, which have been fully attributed to the peculiar obſtinacy of the complaint. As one of the properties of quickſilver is known to be that of exciting the action of the abſorbent ſyſtem, and, by that means, removing local hardneſſes, and particularly thoſe of glandular parts, it was, and with great appearance of reaſon, thought an adviſable remedy in a diſeaſe exhibiting thoſe particular ſymptoms in ſo remarkable a degree.

Wiſeman, the moſt judicious of all the practitioners upon the old principles, employed mercury copiouſly in ſcrofula, as appears from the following paſſage in his "Method of Curing the Evil*." Alluding to the complications of which this diſeaſe had been ſuppoſed capable, he ſays, "In truth, whatſoever diſeaſe it is complicated with, *without some preparation of mercury, our hopes are vain*; nay, in ſome of the moſt deplorable caſes where the patient hath been *much emaciated*, by reaſon of the *acidity of the*

* See the folio edition of his works, printed in 1705; page 245.

*serum**, I have proceeded higher to *salivate them*, and thereby recovered them," &c. To explain the cauſe of his ſucceſs in theſe caſes, however, it may be neceſſary to attend to the context, in which he refers the reader to his "Obſervations on Ulcers with *Caries in the Bones*," many of which, probably, were *venereal* rather than ſcrofulous.

It may farther be obſerved, that Wiſeman's general object in giving mercury, was that which, in theſe days even, is ſomewhat admiſſible, though, by no means, to the extent which he thought proper to carry it. His object was to adminiſter one of the preparations of quick-ſilver, namely, calomel, as a *purgative*; a way in which its ſpecific, and what I conceive to be its prejudicial, effect on the conſtitution, is not to be expected. To make more ſure of this effect, indeed, he never failed to join with it "*pil. cochiæ, pil. e duobus rudii*," or ſome other powerful draſtic: ſo that, although his expectations of ſucceſs were grounded on the action of mer-

* Wiſeman's acquieſcence in this received doctrine of his time, is not remarkable; and although this cauſe of ſcrofula may juſtly be deemed ſuppoſititious, modern times have not ſupplied us with a better.

cury on the *system*, and not merely as a ſtimulant applied to the bowels, it is probable they were not anſwered in thoſe ſucceſsful caſes of which he ſpeaks, but upon a principle which he did not comprehend. Every ſurgeon, indeed, muſt be ſenſible of the truth of this who is aware of the palpable and indiſputable fact, that *purging* and *ſalivation* are not compatible in practice; and that the latter cannot be accompliſhed, or, if at all practicable, is accompliſhed with difficulty, whilſt mercurials operate violently on the inteſtines in the courſe of their being adminiſtered.

In making theſe remarks on the practice of the honeſt and illuſtrious Wiſeman, I am commenting, not only on what was the univerſal practice of his time, but on what, under ſome certain limitations, has exiſted ſince, and is even the practice of the preſent day. It is evident he was acquainted with all the remedies uſed in ſcrofula at preſent, except, indeed, that very important one, Cinchona, of which he could have no knowledge. Remedies of the *tonic* claſs were not then had recourſe to in the ſcrofula; nor were the good effects of ſea-bathing known:—but antimony, particularly that preparation called *diaphoretic*, was in uſe; and alſo burnt

ſponge, a remedy in no inconſiderable repute at preſent. Sarſaparilla, China root, and other vegetable ſubſtances, to which Wiſeman gives the name of "antiſtrumous," were employed moſt abundantly, and, on the whole, with the ſame degree of advantage as at preſent, which is but little.

Modern practice has, indeed, introduced the uſe of a vegetable which was unknown to the earlier practitioners, and which has the teſtimony of ſome eminent men in its favour, I mean *mezereon*. The late Mr. Hunter ranks it in the firſt order of vegetable ſubſtances to be reſorted to in the ſcrofula. He directs it, however, in conſiderable quantity; and it unfortunately happens, that the taſte of it is ſo exceedingly acrid and nauſeous, and its action on the ſtomach ſo liable to produce ſickneſs, that few patients can be prevailed on to carry the trial of it ſufficiently far to aſcertain what its properties really are.

But to return to the ſubject of our objections to the uſe of quickſilver, or any of its preparations, in the ſcrofula; it is only neceſſary to appeal to the experience of thoſe who have witneſſed its effects in venereal caſes. Nothing

is more common than to ſee the ſcrofula ſuper-induced by a mercurial courſe, in conſtitutions which before remained unaffected with it.—Nothing, in fact, forms ſo great an impediment, as does the ſcrofula thus excited, to the ſurgeon's endeavours to deſtroy the venereal virus.

Glands, brought into a ſtate of inflammation by the irritation of a ſhanker, and which, if left to ſuppurate, would go through that proceſs favourably, are very commonly rendered ſcrofulous by the quickſilver rubbed in with a view of diſperſing the tumour. Venereal ulcers of the throat are, by the ſame means, converted into ſcrofulous ulcers; and whilſt mercury continues to act on them, that diſpoſition is increaſed.—Hence we are compelled to change our plan even before the venereal diſpoſition in the part is overcome, and to reſort to the bark, the "anti-ſtrumous vegetables," and ſea-bathing, to counteract the ſcrofulous diatheſis which the mercury has brought on.

But, admitting there ſhould occur none of theſe *external* ſigns of the miſchievous effects of quickſilver in habits prediſpoſed to the ſcrofula, it, nevertheleſs, often happens, that *internal*, and

more fatal ones take place. Some of the viſcera are brought into a ſtate of diſeaſe; the lungs more eſpecially; and when this happens in a perſon who has had a venereal infection, the phthiſis brought on by the remedy is called a *venereal conſumption*; and the patient more certainly getting worſe as the ſpecific for venereal infection is adminiſtered, at laſt dies in conſequence of the treatment.

What has been ſaid may, perhaps, be ſufficient to awaken the attention of medical men to what, if true, is a fact of great practical importance. The effects here attributed to mercury, are not, perhaps, obſervable in every inſtance of its exhibition in a ſcrofulous habit; but that it is truly liable to the ſerious objections we have brought, is a fact, which, now and then at leaſt, is confirmed by ſome ſtriking and fatal inſtance*;

* It may ſeem to the reader, that more is ſaid on this ſubject than is required by the object of this ſection, which is to ſpeak of the *Scrofulous Ulcer* and its treatment. He will perceive, however, as has already been ſuggeſted, that an immediate and neceſſary connection exiſts between the treatment of the general diſeaſe and this local ſymptom of it, and that it is no leſs neceſſary, in ſpeaking of the internal remedies employed by ſurgeons, to diſtinguiſh thoſe that ought to be avoided than

and it is devoutly to be wiſhed, that a cloſe attention to what happens in thoſe caſes where mercury *must* be employed, and where, after its exhibition, ſcrofula *does appear*, may throw ſome farther light upon the ſubject. But, notwithſtanding what is to be apprehended from the full conſtitutional effect of mercury, there are ſome preparations of that mineral, calculated to act ſimply on the *intestines*, which, far from deſerving our reprobation, have, on the contrary, moſt ſalutary effects in the treatment of the ſcrofula.

There is, perhaps, no article in our liſt of purgatives which ſo effectually evacuates the inteſtines, and produces that effect with ſo little irritation and diſturbance, as the preparation we call *calomel*. Some purgatives act by increaſing the ſecretions from the inteſtines, and others by aiding their periſtaltic motion; but there is

than it is to beſtow juſt encomiums on thoſe that deſerve it. I have, in fact, been led to ſome length in this part of my ſubject, from knowing, that a modern treatiſe on the ſcrofula, in other reſpects judicious, adviſes a *reliance on mercury* for the cure. That I am not indiſpoſed to give *calomel*, uſed as a *purgative*, its due ſhare of commendation, will be ſeen in the ſequel; but beyond that, I cannot but feel the importance of oppoſing the uſe of quickſilver in any form except, perhaps, that of a topic, which may, in ſome inſtances, be expedient.

hardly any ſingle article of the materia medica, from which, in both theſe ways, effectual and general evacuation of the bowels can be obtained, unleſs it be this excellent preparation, which has been known, in various inſtances, to perform the taſk, when other cathartics, under various modifications, have proved uſeleſs.

In ſcrofulous ſubjects, there exiſts a great diſpoſition in the veſſels to throw out coagulable lymph. Hence it is that, in ſuch perſons, freſh inciſed wounds heal by the firſt intention with ſingular rapidity; and even in large operations, ſuch as amputation, there exiſts an aſtoniſhing tendency in the parts to contract, and, as it were, *glue* themſelves together, the ſurface that remains unhealed, being nevertheleſs impeded, by thick coats of coagulable lymph ſucceſſively thrown out, and which demand the application of eſcarotic remedies.

This diſpoſition is more particularly evident in ſubjects of the fat, chubby, and florid deſcription; but it may alſo be traced in ſome of the emaciated ſort, and there appears to me a probability, that this diſpoſition prevails pretty univerſally in the glands, thoſe more eſpecially con-

cerned in ſupplying the ſecretions natural to the primæ viæ. Hence, perhaps, we may account for (what is a well known circumſtance occuring in ſcrofulous perſons, particularly children,) the inactivity of the bowels, and the glairy nature of their ſecretions, which form a convenient nidus for worms, and other lodgments, that would not be retained if the periſtaltic motions were more vigorous.

But whether this ſtate of the inteſtines may, or may not, be truly accounted for on theſe principles, its exiſtence in ſcrofulous ſubjects is an acknowledged fact; and it is alſo very generally allowed, that the occaſional removal of theſe pernicious accumulations by a ſuitable purge, far from adding to that debility, which, according to many, has a principal ſhare in the diſeaſe, actually affords ſtrength, by removing the impediments to nutrition, and ſtimulating the languid mouths of the lacteal veſſels.

Every remedy adminiſtered by the mouth, and which occaſions inteſtinal evacuation, goes under the general character of a purge; and it is common to medicines not of that claſs, ſuch as the bark, when given in an over-doſe, to act as

cathartics. But, as has already been obſerved, thoſe medicines which produce ſtools by increaſing the ſecretions from the glands of the inteſtines, do, by no means, the ſame thing as purgatives which prove ſuch by augmenting the periſtaltic motions. In the latter caſe, the inteſtines are merely excited to expel the fœces which happen to be contained in them: in the former, a conſiderable addition of fluids takes place, which renders the fœces more liquid, and cauſes the natural motions of the inteſtines to protrude their contents more expeditiouſly towards the rectum than would happen if the fœces remained ſolid.

I need not enumerate the different articles of the materia medica to which theſe diſtinct properties are attributable, as there is no profeſſional gentleman ſo unexperienced as to be ignorant of them. It is ſufficient to obſerve, therefore, that all the ſaline purgatives, as Glauber's, Epſom, Rochelle, and other ſalts, act by increaſing the ſecretions; whilſt rhubarb, ſenna, aloes, and many other vegetable purgatives, act chiefly by increaſing the periſtaltic motions. It is owing to theſe diſtinct qualities which belong to the claſs of cathartics, that we are in the daily habit of combining them, in order to inſure a beneficial

co-operation, and thus evacuate the inteſtines more effectually than could be done by the adminiſtration of any of them ſingly.

There is another property, with regard to purgatives, which is not leſs worthy of notice; and that is, the diſpoſition manifeſted by ſome of them to act excluſively on *particular parts* of the alimentary canal. It is not eaſy to ſtate, even with the appearance of accuracy, what is the nature of theſe peculiar affinities, if I may ſo call them; but that the general fact is ſo, has been ſufficiently proved by the well known property of aloes to act excluſively on the rectum*.

But as it forms no part of my deſign to enter into theſe ſpeculations farther than may be warranted by their connection with the general ſub-

* If this digreſſion were not already too conſiderable, it would be curious to enquire into the cauſe of that ſtill more ſingular property in aloes of producing a ſort of *reiteration* in the actions of the rectum; ſo that a grain or two ſhall not only produce an evacuation that is *immediately wanted*, but alſo diſpoſe the part to act periodically. The ſtimulus of aloes, too freely applied to the rectum, produces the piles. May we ſuppoſe the permanent irritability brought on by a ſingle doſe, ſufficient to make the inteſtine in greater haſte to act on the deſcending fœces? Or is it that this local effect actuates the higher inteſtines by ſympathy?

ject of ulcers, or than may tend to ſhew the propriety with which a mercurial preparation may be uſed in ſcrofula as a purgative, notwithſtanding its miſchievous effects when given with any other view; I ſhall cut ſhort this digreſſion, by merely repeating, that, among the few remedies which act at once by increaſing the ſecretions from the mucous membrane of the inteſtines, by augmenting the periſtaltic motion, and by an uniformity of operation on the whole inteſtinal canal, there is, perhaps, none equal to calomel: and it is to the poſſeſſion of theſe qualities *alone*, and not to its power of acting ſpecifically on the *ſyſtem*, that the merit aſcribed to it by Wiſeman, and other writers, ſhould be attributed.

A remedy in the ſcrofula, on which, heretofore, practitioners have had great reliance, is *burnt ſponge*. Some, however, attribute the good effects of it ſolely to the mineral alkali contained in it; and on that account, ſubſtitute what, in the new language of the College, is called *natron*, as a leſs inelegant medicine. The popularity of this remedy is, in a great meaſure, owing to its apparent ſucceſs in the treatment of the Derbyſhire neck; though it is by no means clear, that the co-operating remedies employed

in the cure of that complaint, namely, calomel, and other purgatives, have not a very material ſhare in the proceſs.

Speaking then of burnt ſponge as of mineral alkali, may not its action, beſides that to be expected through the medium of the circulation, be traced to ſomething analogous to a courſe of purgatives? Or, at leaſt, may not it have the effect of diſſolving or decompoſing that adheſive mucous, which we have ſuppoſed, in this diſeaſe, to interfere with the healthy actions of the inteſtines?

It is not, perhaps, to be denied, that one of its modes of operation, is that of a kind of univerſal ſtimulant; for there is great reaſon to ſuppoſe, that, in common with turpentine, and ſome other ſubſtances, alkalies enter the blood veſſels, without undergoing any change in the ſtomach. But, at leaſt, that they may paſs through the firſt paſſages without undergoing the proceſs of aſſimilation, may be fairly conjectured, from their known property of entering the bladder, and acting as ſolvents on urinary calculi. In their courſe, therefore, through the bowels, I ſee no difficulty in ſuppoſing, that they combine

with, and tend to carry off, thoſe glutinous ſecretions which obſtruct the mouths of the lacteal veſſels, and thus produce ſilently, and by a ſort of chemical combination, the ſame effect as is to be expected from the occaſional exhibition of purgatives.

But whatever be the modus operandi of this remedy*, it is certainly amongſt thoſe that occaſionally prove ſerviceable in the ſcrofula, and that even in very inconſiderable doſes. If given largely, indeed, and for a length of time, it may prove injurious to the ſyſtem; and for that reaſon, perhaps, it is, that, with moſt practitioners, the very ſmall proportion uſually exhibited when the form of *burnt ſponge* is preferred, is found to anſwer better than natron in its *prepared* ſtate.

From ſpeaking of the effects of mineral alkali given internally, we come to conſider the

* Dr. Cullen, ſpeaking of the claſs of remedies termed *attenuantia*, includes a ſubdiviſion termed *resolventia*, which, he ſays, "are properly ſuch ſubſtances as give *fluidity*, to portions of our fluids that had been *formerly concreted*." Among the remedies of this deſcription, it is worthy of notice, that he has included both the foſſil and volatile alkalies. May not theſe *resolve* the *concreted lymph*, which ſeems to conſtitute the diſeaſe in the caſe of ſcrofulous tumours?

uſes of *ſea-bathing* in the ſcrofula.—It has been very unwillingly granted by ſome writers, that bathing in ſalt water, is of greater efficacy than bathing in any other ſort of water of the ſame temperature; for, ſay they, it is alone the *tonic* effect of the cold, ſuddenly and univerſally applied to the body, which is of ſervice; and this effect may be produced equally well by immerſion in freſh water. Not to advert to the multitude of facts which militate againſt this ſuppoſition, we may very reaſonably ſuppoſe, that ſo general an application of ſalt to the ſkin is attended with ſome ſhare of advantage, for common ſalt is a compound in which the mineral alkali predominates; and from daily immerſion, no doubt, conſiderable quantities of it muſt be abſorbed. I would not, however, be ſuppoſed to contend, that the good effects of ſea-bathing in the ſcrofula depend upon the application of ſalt to the ſurface of the body. On the contrary, I admit its inferiority to ſea water as a cold bath; yet I am, nevertheleſs, diſpoſed to conſider the ſalt as no deſpicable or unneceſſary agent in the reſult.

Perhaps, however, we ſhall not give to this remedy of ſea-bathing its full ſhare of credit, if we do not alſo take into the account the effects

of *sea air* on the conſtitution. We well know, that the air on the ſea coaſt is loaded with ſaline particles, which enter the lungs on inſpiration, and alſo apply themſelves continually to the whole ſurface of the body. That this is the caſe, does not admit of a doubt, ſince the particles of ſalt are taſted as they fall on the lips of thoſe who walk at ſome diſtance from the ſea; and that this ſlight application of ſalt alone to the body, is capable of doing *some* ſervice in ſcrofulous diſeaſes, is manifeſt from the following caſe*:—

A gentleman, between twenty and thirty years of age, very healthy in other reſpects, had a foul ulcer with thick and curling boundaries on the edge of his tongue. Its commencement for ſome few weeks was marked only by a ſmall lump, or thickening of the part, which at laſt gradually opened by a kind of fiſſure, diſplaying an ulcer with a foul buff-coloured ſurface, which increaſed, in the courſe of a few months, to nearly the dimenſions of a ſixpence. The diſeaſe, however, manifeſted itſelf much beyond this, by the ſwelled ſtate of the ſurrounding parts. The patient, while in this ſituation, had occaſion to

* Communicated to me by a medical friend.

take a ſudden voyage to the Continent, and being apprehenſive, though the pain and inconvenience he then felt were not ſo conſiderable as from the appearance of the ſore might reaſonably have been expected, that the diſeaſe might proceed to a ſerious length if neglected during ſo long a journey, he thought it adviſable to apply to a profeſſional gentleman, by whoſe inſtructions he might be guided in the treatment of it, and from whom, indeed, he received a ſupply of ſuch medicines, both topical and for internal uſe, as the ſtate of the ulcer ſeemed to require. The hurry of preparation, however, interfered with his intention of making ſome uſe of his medicines even before his embarkation; and, in fact, nothing was done; but to his great ſurprize, during his detention for a few days on the ſea coaſt, the ulcer in his tongue, which had exiſted for ſo long a time, healed up; his medicines were conſigned to the jaws of the *ocean*, and he has remained perfectly free from the complaint ever ſince.

As in this caſe there could be no other application of the ſaline particles, either topically or to the ſyſtem, but what was effected through the medium of the ſea breezes; as *no medicine whatever* was uſed by the patient; and as the

diſeaſe was gaining ground during his continuance in London, the place of his ordinary reſidence; what can be the concluſion, but that the ſtate of the atmoſphere on the ſea coaſt occaſioned the cure?

But let us now conſider ſea-bathing in the light of a tonic, in which moſt people view it, and certainly not without good reaſon. If immerſion in the ſea were unattended with the concomitant benefits of which we have been ſpeaking, it would, of courſe, rank no higher as a remedy for the ſcrofula, or, indeed, any other diſeaſe, than freſh water of the ſame temperature. The tonic effect is produced merely by the ſudden and univerſal application of cold to the ſurface of the body, by which the extreme veſſels are invigorated, and a more equable circulation of the blood in them is occaſioned. The ſudden conſtriction of the veſſels of the ſkin, cauſes the blood to retreat back upon the viſcera; and, by that ſalutary ſtimulus, is inſtrumental in exciting in them an unuſual degree of exertion to reſtore the equilibrium of the circulation. This exertion, it is likely, produces tone and vigour in parts whoſe functions before were languid, and it is thus, perhaps, that in glands affected with

ſtruma, a beneficial change is produced. The opportunities of immerſion in cold freſh water, are, undoubtedly, within the reach of every one; yet the trials made of it by ſcrofulous patients, ſo circumſtanced as not to have the opportunity of bathing in the ſea, are, by no means, ſuch as to put theſe two remedies on an equal footing, or to ſupport the opinions of thoſe who rely on the mere *tonic* properties of ſalt water.

Since we know, however, by chemical analyſis, in what the ſea differs from freſh water, ſomething is to be done by introducing a ſuitable proportion of ſalt into the water in which the patient deſigns to bathe. The quantity neceſſary is about 5lb. to every 12 gallons of water*.—

* The experiments made by M. de Pagés, of which an account is given in his voyage round the world, evince a conſiderable difference in the ſaltneſs of the ſea in different latitudes. Each of his experiments was made on one hundred pounds of ſea water, taken at the depth of ten fathoms, and weighed in water ſcales.—The author has exhibited a table of theſe reſults, in which it appears, that 46° 12″ S. lat. 100lb. of ſea water gave 4½lb. of ſalt, and in 1° 16″ only 3½lb. and that in 74 N. lat. it gave 4¾lb. and in 4° 22″ only 3½lb.; theſe being the higheſt and loweſt latitudes in which the experiments were made, and alſo the greateſt and leaſt quantities of ſalt obtained. Accuracy, perhaps, is not very material to *our* purpoſe, and even an exceſs of ſalt can be attended with no bad effect, for which reaſon, I have a little exceeded the proportion here mentioned as the higheſt.

This, at leaſt, may be conſidered as ſomewhat preferable to freſh water alone, yet experience proves it far inferior in efficacy to that element of which it is deſigned as an imitation, for the reaſons which have been already ſuggeſted.

But the effect produced on the conſtitution by the uſe of cold bathing, is attended with ſome phenomena, which have embarraſſed the thinking part of the profeſſion not a little. For it has been ſuggeſted, and the idea has alſo been ſuſtained by experiments, that the ſame beneficial reſults, in ſimilar caſes of diſeaſe, have attended the uſe of the *cold* bath and the *hot*; or, at leaſt, that the degree of cold in the one, and of heat in the other, ſeem to admit of being ſo managed as to produce nearly the ſame effect.

Some evidence of this fact has reſulted from the practice of employing the tepid bath, of late years, in hypochondriacal caſes, and in ſome other diſeaſes, which, according to the generality of practitioners, have rather demanded the *tonic* properties, heretofore excluſively attributed to the *cold* bath. Perhaps the experience of a few years more may eſtabliſh the like fact with regard to the treatment of ſcrofula, for certain it is, that

ſince the opportunities of *warm salt water bathing* have become frequent on the ſea coaſt, a variety of inſtances have occurred, in which, eſſential benefit has been derived from the uſe of it. For internal, as well as external, ſcrofulous affections, for thoſe of the meſenteric, and other glands, for white ſwellings, diſeaſes of the proſtate, ulcers, and various other forms in which the ſcrofula is liable to occur, it has, I believe, been demonſtrated, that the tepid ſalt water bath has, at leaſt, been of as great, but, in ſome inſtances, of much greater, ſervice, than ſea water when uſed in the ſtate of its natural temperature.

If this be the caſe, what becomes of the principle on which ſea bathing is ſo univerſally, and almoſt excluſively, ſuppoſed to counteract this diſeaſe? Is the effect, called *tonic*, capable of being produced by any degree of relative warmth? Or is the term ill calculated to expreſs the effect *really occasioned* by *cold* bathing? But let us now proceed to conſider the properties of a remedy of late years more implicitly confided in than, perhaps, any other in the treatment of the ſcrofula: this remedy is the bark.

That this medicine, of ſuch excellent uſe in various other diſeaſes, is alſo an important one in

that now under our conſideration, cannot be denied; and, perhaps, there is ſcarcely any ſtate of the diſeaſe for which it is ſo well calculated as the ſcrofulous *ulcer*. The great misfortune is, that it requires to be adminiſtered, not only in conſiderable quantity, but alſo for a great length of time, to produce any very obvious good effect; and the ſcrofula, in every form, is a diſeaſe of ſo protracted and ſlow a nature, that ſcarcely any one can perſevere ſufficiently in the uſe of it*. But, if this be the caſe with adults, how much more does it form an objection, when it is required to adminiſter this remedy to children, the moſt uſual ſubjects of the diſeaſe of which we are ſpeaking? Theſe are, in fact, precluded wholly from the benefits of it. Let us ſee, however, what the celebrated Dr. Cullen ſays of its uſe in the ſcrofula.

"The bark," ſays he, "has been employed in ſcrofulous caſes. The ſcrofula is attended with ulcers *mali moris*, depending on a *flaccidity of the veſſels of the part*, and of the *ſyſtem in general* very often; ſo that here the bark is plainly

* We learn from Dr. Fordyce, that the *full* effect of the bark is only to be expected when taken to the quantity of *an ounce* in a day.

indicated; and I make no doubt of the ſucceſs had by Doctors Fothergill and Fordyce in ſuch circumſtances. But it muſt be obſerved, that the bark *very often fails* in this diſeaſe. Even theſe gentlemen have not always ſucceeded, becauſe, I imagine, this diſeaſe is often not to be cured *certainly* by *any* medicine; for it ſeems often a diſeaſe of the *lymph* ſeated in the lymphatic veſſels, and not depending ſo much on a *general flaccidity of the system* as in ſome particular affection of the lymphatics, and *matter generated there**."

This account being ſufficient for our preſent purpoſe, it is unneceſſary to add to it; and eſpecially as the ſubject will again fall under our notice when we come to deſcribe the general treatment. There remains only one more remedy, or claſs of remedies, on which it is neceſſary to remark, and theſe are *ſtimulants*, the moſt appropriate of which, and that to which we ſhall chiefly confine ourſelves, is *volatile alkali*.

* Vide Lectures on the Materia Medica, Edin. 8vo. ed. 1781, page 251. Aſtruc ſays, "As this diſorder is in the *lymphatic glands*, the *peccancy* of *the lymph* muſt have given riſe to it." Treatiſe on the Diſ. of Children, page 197.

In the uſe of ſtimulants, in every diſeaſe, we ought not only to conſider their immediate, but alſo their ſubſequent, or ſecondary, effects; which, as in the caſe we are now treating of, are frequently in direct oppoſition to the intention with which they are at firſt employed.

The late Dr. Brown, who promulgated, and ſo far ſupported, a ſyſtem of medicine of *his own*, as to make converts of a large proportion of the medical profeſſion of the preſent day, very juſtly ſtates the *ſecondary* effect of ſtimuli to be *weakneſs*, or, to uſe his own language, "*indirect debility.*" Hence we ſee how improperly ſtimulants, in a limited view, are uſed in the ſcrofula.—Happily, however, we have, by the aſſiſtance of the bark, the means of rendering their effects on the animal fibre *permanent*; a circumſtance of the higheſt importance in every view, ſince, by combining theſe two remedies, we produce a third of very extenſive utility.

Of the various ſtimuli which the materia medica ſupplies, there is none, perhaps, by many degrees ſo appropriate to our purpoſe as volatile alkali; and the reaſon very naturally ſuggeſts itſelf from what has already been obſerved on the

uſe of mineral alkali. Superadded to the effect which may be expected of it as an alkali, we have alſo that of a ſtimulant of extraordinary power, and one with which the ſtomach will diſpenſe much more largely than its ſenſible effect on the organs of taſte and ſmell ſeems to indicate*.

There can be no doubt of the propriety of claſſing ſtimulants amongſt the remedies neceſſary to be employed in a diſeaſe where debility is ſo leading a feature; provided that their effects can be rendered permanent by the uſe of the bark, of which there is no queſtion. We ſhall not, however, dwell on this ſubject in particular, but proceed to conſider in what way the remedies of which we have made mention, or ſome of them, may be employed with the greateſt effect in the ſcrofula.

In entering on this topic, it may not be improper to premiſe, that I do not mean to ſpeak of any of thoſe remedies whoſe properties, after an abundant trial, have proved ſo precarious as to make their choice a matter of mere ſpecula-

* "If, by any means, we could defend from its action the mouth and fauces, it might be thrown into the ſtomach in a *large dose*, even without inconvenience."—CULLEN.

tion and conjecture; but rather, in a conciſe way, to ſtate in what manner thoſe few may be beſt employed, which, in ſo far as I have ſeen, are worthy of being preferred to the reſt. I ſhall likewiſe confine myſelf to the treatment of thoſe ſcrofulous affections which are external, and which we will ſuppoſe to ariſe in the *adult* ſubject; becauſe, in infants, we are precluded the uſe of many of our beſt remedies, and muſt therefore, of neceſſity, rely on thoſe whoſe qualities are ſomewhat inferior, but poſſeſs the advantage of being more eaſy to adminiſter. In this account too I ſhall ſpeak of the uſe of topical remedies, which have not as yet been adverted to.

Let the external ſigns of ſcrofula in the patient be what they may, our firſt endeavour muſt be to reach them through the medium of the conſtitution. Here, to ſay nothing of the means already ſpoken of, what a hoſt of remedies preſent themſelves, equal alike in their powers, and in their deficiencies. On which of theſe, after the experience of ſo long a period, an experience which has decided ſo little in their favour, ſhall we fix our choice? We muſt, at leaſt, reſort to thoſe on which the ſentence of *poſitive inefficacy* has not yet been paſſed, in preference to thoſe

which the united judgment of medical men ſeems to have rejected. Thoſe which are *under* trial, are, at leaſt, preferable to thoſe that have been *fully tried*, and *found wanting*.

If the ſcrofula has manifeſted itſelf, as it moſt frequently does, in the form of an enlarged gland, advancing daily in ſize, and threatening to terminate in ſuppuration, its progreſs ſhould be counteracted by the uſe of every kind of topic that is likely to diminiſh the latent and deep ſeated inflammation in the part. For this purpoſe, cold lotions, of a variety of kinds, are in uſe; ſuch as lead water, aqua ammoniæ acetatæ, lime water, ſolutions of vitriolated zinc, of muriated ammonia, of alum, &c. It is common to apply theſe upon bits of linen rag, laid one over the other, to a ſufficient thickneſs, and kept continually wet by repeatedly dipping thoſe on the outſide. It is difficult to ſay which of theſe applications anſwers beſt; or even whether they are any of them of much ſervice. Some practitioners rather prefer the uſe of liniments, of the kind named diſcutient; ſuch as a ſimple ſolution of ſoap in brandy; or the ſame remedy joined with an equal quantity of the water of acetated ammonia, or with a ſmall quantity of water of

acetated litharge. Some employ liniments of a moderately ſtimulating kind; probably, with a view of exciting the abſorbents to action. The compoſition of theſe is various: olive oil, with ſpirit of hartſhorn, or water of pure ammonia; or a ſolution of ſoap with the latter addition; or the compoſition, called *embrocatio ammoniæ**.

Other practitioners reſort to plaſters, in which diſcutient, or repelling remedies, are variouſly combined; and from theſe, if not compoſed of ingredients of too ſtimulating properties, very favourable effects ſometimes reſult, though the event is almoſt a matter of accident.

Speaking generally, indeed, of all theſe remedies, there is very great uncertainty as to their effects. They either do nothing, or if they act at all, they are juſt as liable to forward as to retard ſuppuration. The ſame may alſo be ſaid of the like remedies employed in the form of fomentations or poultices. Plaſters, indeed, are to be excepted from the charge of inactivity, for, independent of the properties of the ſubſtances which compoſe them, they act by confining the

* Pharm. Chirurg.

perſpiration, and, undoubtedly, haſten the criſis of the tumour in one way or other.

Not to dwell, however, on theſe ſeemingly unprofitable ſpeculations, let us circumſcribe our endeavours to prevent the progreſs of inflammation and ſuppuration in ſcrofulous tumours, within a narrower compaſs. To impede the progreſs of any ſcrofulous ſwelling, and prevent its becoming an *ulcer*, we ſhould, in the firſt inſtance, draw blood from the part, by the application of a ſufficient number of leeches; repeating this ſeveral times ſucceſſively, at intervals of three or four days, or a week, according to the effect produced. We ſhould alſo, without delay, preſcribe an emetic, and repeat it twice or thrice; or we ſhould adminiſter ſome purgative and emetic remedy united, ſo as to produce a moderate evacuation in both directions. This latter effect may be very conveniently obtained, by a doſe of calomel joined with a very ſmall proportion of tartarized antimony; a formula extremely well calculated for children.

In the intervals between the application of the leeches, as it will be thought right to be doing ſomething, and to take even *a chance* of

promoting the great object of diſperſion, we ſhould apply the water of acetated ammonia to the part, or a ſolution of muriated ammonia in brandy, or even a ſolution of common ſalt in water, in the proportion of 1 part to 28. If it can be had, we may uſe, in preference to the foregoing, a poultice of the well-known marine plant, called *sea tang**, bruiſed in a mortar, and applied cold, a remedy approved of by the late Mr. Hunter. If, in ſpite of theſe endeavours, the ſwelling gives pain, the inflammation ſeems to gain ground, and the ſkin becomes red, we may try the effect of pounded ice applied to the part, and renewed as faſt as it melts away.

* The *fucus vesiculosus* of Linnæus. The virtues of this plant have been copiouſly ſpoken of by Dr. Ruſſel, in his Treatiſe on the Uſe of Sea Water in Diſeaſes of the Glands. He conſiders the ſaponaceous liquor contained in the veſicles of this plant, as an excellent *resolvent*, and recommends the ſcrofulous tumours to be well rubbed with it, (after bruiſing the plant with the hands) waſhing them afterwards with ſea water. He recommends for the ſame purpoſe the following method to be taken:—Having gathered two pounds of the *vesicles* of this plant, in the month of July, infuſe them in a quart of ſea water for a fortnight, when the liquor will have acquired the conſiſtence of honey. The ſwellings are to be rubbed with the ſtrained liquor three or four times a day, waſhing them afterwards with ſea water. It is very probable that the ſcrofulous *ulcer* would be benefited by a ſomewhat ſimilar treatment, where there is an opportunity of putting it in practice.

In ſome caſes, where the ſwelling is particularly indolent, increaſing only in *size*, and without ſhewing any other diſpoſition, I have witneſſed the beſt effects from the uſe of a liniment compoſed only of vitriolic acid and olive oil, in the proportion of one dram to an ounce of the latter. Some have alſo been benefited by the uſe of the linimentum bituminis ammoniatum, a remedy employed as "a moſt powerful *diſſolver of thickened lymph*," by Dr. Kirkland.—In ſome, a plaſter has been of ſervice, compoſed of equal parts of the quickſilver and warm plaſters, and lightly ſprinkled towards the centre with camphor finely powdered.

The other remedies neceſſary to be uſed, as well to prevent the progreſs of a tumour to the ſtate of a ſcrofulous ulcer, as to promote the cure of the latter when eſtabliſhed, are, ſea-bathing, if it can be had, or the artificial ſea-water bath already ſpoken of; the uſe of natron internally, either *per ſe*, or in the ſtate of burnt ſponge; the occaſional exhibition of calomel, as a purge; a copious and perſevering exhibition of the bark; and, joined with it, if not likely to occaſion diſguſt in the patient, a good proportion of volatile alkali.

The bark will, in general, be found moſt effectual, when exhibited after a courſe of calomel purges have been perſevered in, or where emetics have been premiſed. It is expedient, indeed, in moſt caſes, to employ theſe means *alternately*; for the bark will, after a time, loſe its effect; and, in that caſe, the uſe of calomel purges ſhould be adopted*, and, after a while, the bark will again be found to ſucceed as well as at firſt.

Decoctions of ſarſaparilla and mezereon, in conjunction, or ſeparately, are not to be rejected, when more promiſing remedies ſeem to fail, or where the opportunity of employing them is particularly favourable. Many patients are ſoon diſguſted with the bark, no leſs on account of its nauſeous taſte, than its appearance, when employed in ſubſtance; and when this is the caſe,

* It may not be amiſs to obſerve here, that the mode of preparing calomel by *precipitation*, after the manner of *Scheele*, (now univerſally practiſed in conſequence of the brevity of the proceſs, by the London Chemiſts,) is, by no meaas, favourable to its action as a purgative. It may, indeed, be very reaſonably queſtioned, whether it is exactly the ſame medicine as the old calomel, prepared by ſublimation, and afterwards levigated. This precipitate, which has been received of late by the College, under the name of *hydrargyrus muriatus mitis*, will ſtand in need of the addition of ſome draſtic, or ſome other purgative ſubſtance, when employed with the view here propoſed.

it is ſome relief to them to uſe decoctions of ſarſaparilla, &c. in its ſtead*.

The ſcrofulous ulcer, though, in moſt caſes, it is found to affect glandular parts, and to ariſe from the ſuppuration of the glands themſelves, is, nevertheleſs, frequently ſeen in other ſituations. There is, indeed, no part of the body where it may not exiſt, and its appearance on the extremities, is ſcarcely leſs common than on the neck, breaſt, &c. It is particularly liable to occur in thoſe places where the diſeaſe has reached the bones; and will often remain, and extend itſelf, after the caries is got the better of. It alſo forms a deſcription of ulcer very difficult of cure in the legs, ancles, and feet; becauſe, independent of the obſtacles formed by the ſpecific character of the complaint, we have to contend with thoſe impediments which are common to every ulcer in the ſame diſadvantageous ſituation.

This kind of ulcer is not attended with any ſtriking marks by which its ſpecific nature may be

* Much of the diſguſt ariſing from the taſte of bark, is to be attributed to its *aſtringency*, and this is remarkably overcome by its being taken in milk, or, according to ſome, in mucilage of gum arabic.

diſtinguiſhed. It may, however, be pretty accurately diſcriminated by the concomitant ſymptoms and appearances, its ſituation, &c. The diſcharge is likewiſe of a curdled, whitiſh, unnatural appearance; the edges of the ſore are thick and projecting; and the ſurrounding parts are tumid, and inſenſible in general, though, in ſome caſes, very painful.

It has been already obſerved, that the treatment of this ulcer depends almoſt wholly on the treatment of the diſeaſe in the ſyſtem. Nevertheleſs, there is ſomething to be done by means of local applications; at leaſt, it is indiſpenſably neceſſary, that every precaution required in the treatment of a common ulcer, ſhould be regularly and attentively obſerved in this; ſuch as a daily renewal of the dreſſings, and every regard to cleanlineſs, as well as to the circumſtances under which motion or reſt ſhould be enjoined.

If bathing in the ſea can be had, it is of ſervice to expoſe the ulcer at the time of going in, and the ſame if an artificial ſea-water bath be uſed; or if circumſtances do not admit of either of theſe, the ulcer may at leaſt be waſhed daily with cold ſalt water, ſprinkled over it by means

of a ſponge; this, indeed, ſhould be a preliminary to every other dreſſing that may be intended.

The topical applications ſuppoſed to facilitate the healing of the ſcrofulous ulcers are exceedingly numerous; but we ſhall here only notice thoſe few that experience has moſt entitled to a preference. Solutions of natron; or of acetated ceruſe; of vitriolated zinc; of muriated quickſilver; of ammoniated copper; or of nitrated ſilver; are each worthy of a trial; and theſe ſhould either be bruſhed over the ſore with a camel's hair pencil, or applied on pledgits of lint.

There is ſome reaſon to fear, that common ſalves, and greaſy applications, rather do miſchief; they are therefore to be avoided, if poſſible, even as *outer* dreſſings, but much more ſo as dreſſings to the ulcer itſelf. Where their great convenience overbalances theſe conſiderations, with regard to the former purpoſe, much of the objection may be obviated, by a choice of ſuch ointments, as include in their compoſition an ample proportion of ſoap; for by that the clammineſs of ſuch ſalves is prevented, and the dreſſing, when taken off, leaves the ſurrounding ſkin clean and unſmeared.

There are, however, ſome formulæ which are exceedingly well adapted to the treatment of the ulcer itſelf, and which yet admit of oil, &c. among their ingredients, as a means of incorporating other ſubſtances. Theſe compoſitions are too numerous, and on too equal a footing, with regard to their virtues, to require any circumſtantial account in this place*. We would therefore obſerve in a general way, that the moſt ſerviceable applications to ſcrofulous ulcers, are thoſe ointments which include mineral alkali, neutral ſalts, (as the vitriolated natron) volatile alkali, quickſilver in the nitrous or muriatic acids, honey, or the juices of narcotic vegetables. With regard to my own experience on this head, nothing has ſucceeded better with me than a compoſition of *unguentum picis* united with ſuch a proportion of *ſal cornu cervi* as will juſt ſtimulate without inflaming the ulcer. It muſt be obſerved, however, that when this ointment is employed, it ſhould be mixed at the time of dreſſing the wound; as, otherwiſe, its qualities will be impaired, by the eſcape of the volatile parts of the ſalt into the atmoſphere. Next to

* The claſs of cerates and unguents, in the Pharm. Chirurg. include ſeveral of them.

this remedy, I know of no better ointment than the ceratum mellis, prepared with the emplaſtrum lythargyri cum gummi.

It would be ſuperfluous here to repeat the directions given in the former part of this work, reſpecting the treatment of ulcers in general, which it will be neceſſary the ſurgeon ſhould obſerve, in a greater or leſs degree, in the treatment of thoſe of a ſpecific character: for whilſt the neceſſary internal remedies are employed, to counteract the diſeaſe in the ſyſtem, no diligence ſhould be wanting in the choice and management of ſuch applications as may diſpoſe the ulcer to heal. This, indeed, it may be ſufficient to mention here, once for all; as this remark will be found to apply, no leſs with regard to the ſubject of which we have juſt been treating, than to the two we ſhall now proceed to examine.

§ 4. *Of the Phagedænic Ulcer.*

THERE is no ſubject, perhaps, which ſurgical writers have treated with ſo little perſpicuity as that on which we are next to employ our attention. It ſeems, indeed, as if the knowledge of this ſingular ſpecies of ulcer had made no advances ſince the time of Celſus, and that the want of ſucceſs, which has too uniformly attended the treatment of it, had operated on the ſurgeons of later times, as an effectual diſcouragement to inveſtigation. To methodize the jarring opinions of thoſe who have attempted the ſubject, however, and to draw from facts a ſyſtem replete with ingenuity, has been a taſk reſerved for an ingenious writer of very late date, who has ſo thoroughly anticipated the few ideas I had collected on the ſubject, and expreſſed thoſe ideas in a language ſo much more clear and ſatisfactory, that I ſhall do little more than recite his opinions, and often his own words, in the courſe of this enquiry.

That very erroneous and inadequate notions of this ſpecies of ulcer have been heretofore re-

ceived by profeſſional men; and, in fact, that little or nothing of its true nature has been communicated by any medical writer from the time of Celſus, may be fairly inferred from the ſcanty ſhare of notice beſtowed on it in one of our lateſt publications, which lays claim to a conſiderable degree of popularity. Mr. Benjamin Bell, though with every advantage of what preceding writers may have ſaid on the ſubject, ſpeaks in a very general and curſory way of the phagedænic ulcer, as little more than a high degree of *herpes exedens*. Thus, in his *Obſervations on the Cutaneous Ulcer**, he ſays, "The *herpes exedens*, ſo called from its deſtroying or corroding the parts which it attacks, at firſt generally appears in the form of ſeveral ſmall ulcerations, all collected into larger ſpots, of different ſizes and of various figures, with always more or leſs of an eryſipelatous-like inflammation.—Theſe ulcerations diſcharge large quantities of a thin, ſharp, ſerous matter; which ſometimes forms into ſmall cruſts, that, in a ſhort time, fall off; but moſt frequently the diſcharge is ſo thin and acrid, as to ſpread along the neighbouring parts, and there to produce the ſame kind of ſores.

* Treatiſe on Ulcers, Sect. ix. p. 314.

" Though theſe excoriations, or ulcers, do not, in general, proceed farther than the cutis vera, yet ſometimes the diſcharge *is ſo very penetrating and corroſive*, as to deſtroy the ſkin, cellular ſubſtance, and, on ſome occaſions, the *muscles themselves*. It is this ſpecies of the diſorder which ſhould properly be termed the *depascent*, or *phagedænic*, *ulcer*, from the great deſtruction of parts which it very frequently occaſions: but, by a piece of very great impropriety, ulcers of the herpetic kind have moſt commonly been conſidered as connected with ſcurvy, and have, therefore, by practitioners in general, been uſually diſtinguiſhed by the appellation of ſcorbutic."

Whether the erroneous opinions reſpecting the phagedænic ulcer, which are here attributed to the generality of practitioners, be juſtly chargable on them or not, it is certain, that the nature of the diſeaſe has not, till of late, been pointed out with any thing like preciſion. It is not improbable, indeed, that the practice of employing quickſilver in the treatment of obſtinate ulcers, may have produced the phagedænic diſpoſition in parts not originally affected with it; for we have many proofs of its producing that

ſpecies of miſchief, where it has been copiouſly employed during the ſuppuration of a bubo, &c. and thus it is, that ſurgeons may have entertained very confuſed notions of the nature of phagedæna, from the circumſtance of the change they may have remarked in ſome ulcers from a phagedænic character to ſome other, or *vice versa*, according to the uſe or diſuſe of mercurial remedies employed with a view to affect the ſyſtem.

Two diſtinct ſpecies of phagedæna have been deſcribed: one denominated "a ſloughing with ulceration, and each in ſucceſſion;" the other, ulceration, kept up by the irritation of the ſecreted pus*. The firſt of theſe is the kind of ulceration we have already deſcribed, as occurring in hoſpitals, to patients in a ſtate of debility, on whom extenſive operations have been performed. The conſtitution being prediſpoſed, and the morbid poiſon floating in the atmoſphere getting acceſs to their wounds, a moſt formidable phagedænic ulceration, of the ſpecies we are now deſcribing, ariſes, difficult to conquer, and frequently rendering neceſſary a repetition of the operation.

* Adams on Morbid Poiſons, chap. iv.

Phagedænic ulcerations upon the penis are ranked by Celſus among the cancers. Thus, in his ſection*, "*Concerning the cure of a* CANCER *in the penis,*" and that immediately following, "*Of the cure of the* PHAGEDÆNIC *ulcer in the penis,*" he treats the ſubject in the following words:—"In what we have hitherto deſcribed, there is ſtill no gangrene; to which, as in the other parts, ſo more eſpecially here, ulcers are liable. It begins with *a blackness.* If this ſeizes the prepuce, a probe muſt be immediately put under it, and an inciſion made; then the extremities are to be laid hold of with a vulſella, and whatever is corrupted muſt be cut away, and even ſome of the ſound part taken off, and the place cauterized. Whenever any part is burned, the next ſtep is to apply lentils; afterwards, when the ſloughs have caſt off, the cure is the ſame with that of common ulcers.

"But if a gangrene has ſeized the penis itſelf, ſome of the eſcharotic medicines muſt be ſprinkled upon it, chiefly that which is compoſed of lime, chalcites, and orpiment. If medicines fail of ſucceſs, here alſo whatever is corrupted is to

* Vide Greive's tranſlation of Cels. lib. vi. cap. 18; or Cels. ibid.

be cut out with a knife, in such a manner as that some of the sound part be taken with it. This rule is as universal as the former, when a gangrened part is cut away, that the wound must be cauterized. But if, either by means of medicines, or the actual cautery, the sloughs have grown callous, there is great danger, that when they cast off, a profusion of blood from the penis may follow; therefore long rest is necessary, and keeping the body almost immoveable, till the sloughs be gently loosened from it in proper time. But if a person, either wittingly, or inadvertently, by walking too soon, has separated the sloughs, and there ensues a hemorrhage, cold water must be applied. If that does not prevail, recourse must be had to those medicines which stop blood. If even these do not relieve, the part must be cauterized carefully and cautiously; and not afterwards exposed to the same danger by any motion whatever."

What follows is yet more immediately applicable to the subject:—" Sometimes also, in the same place, there happens that kind of gangrene, which the Greeks call phagedæna; in which no time is to be lost, but the same remedies must be immediately applied; and if these

are not ſucceſsful, it muſt be burnt by the actual cautery. There is likewiſe a certain *blackness, which gives no pain, but spreads*, and, if we do not reſiſt it, makes its way to the bladder, and cannot be cured afterwards. But if it be at the end of the glans, near the urinary pipe, a ſmall probe ſhould be introduced into that firſt, to prevent its cloſing; and then the actual cautery muſt be applied to the ulcer. But if it has penetrated deep, whatever is tainted muſt be cut off. For the reſt, it muſt have the ſame treatment with other gangrenes."

Wiſeman, in book ii. chap. x. of his treatiſe, has the following remarks on this ſubject:— "*Phagedæna*," ſays he, "ſtrictly ſo called, is an ulcer with *swelled lips*, that eats the fleſh and neighbouring parts in the bottom and edges of the ulcer. It differs from the *herpes*, becauſe that *always begins in the skin*, with little moiſture: *this* always affects the *flesh*, and abounds with matter.

"*Noma* is a deep ulcer, *that eats and spreads without tumour*, but hath a *rottenness and putrefaction* joined with it.

" Both theſe are venomous malignant ulcers, and both ſpread: but they differ, in that one hath *tumour, and no putrefaction*; and the other, *putrefaction, and no tumour.*"

Of the ſymptoms, he obſerves; " Some take their original from abceſſes deep in the fleſh, others begin more ſhallow, and in time ſpread and eat not only the ſkin and fleſh, but the parts about, and diſſolve the fleſh in the bottom of the ulcer very ſenſibly."

Concerning the cure, after recommending local applications that are " cold and dry," in a ſenſe not intelligible to the modern ſurgeon, he adds, " If theſe anſwer not expectation, you muſt proceed with more ſtrong medicaments. But by the authority of the ancients, you muſt *ſcarify* theſe ulcers, or ſome way provoke them to bleed, that the *ſharp humours* may thereby be diſcharged. Then waſh them with ſome *drying* medicaments, which may alſo reſtrain the influx of the humours, as *aqua calcis, æruginósa*, or *aluminosa, &c. &c.*"

" But," continues he, " if this ulcer be with *rottenness and putrefaction*, you are to proceed

with detergents, as *unguentum Ægyptiacum*, *mercurius præcipitatus*, *pulvis andronis*, *musæ*, alſo *caustic*, and *actual cautery*.

" To theſe applications, objections have been made; and, but a little above, medicaments are by myſelf propoſed, *drying without errosion*; but when theſe take no place, we proceed to ſtronger; and where there is *putrefaction*, you will find uſe for the ſtrongeſt ſort of medicaments, as the *actual cautery*, it not only ſerving to remove the *corrosive flesh*, but to check the malignity, and ſtrengthen the weak part. But, in caſe that will not be admitted of, you muſt proceed with the other, and the while defend the parts about with *refrigerants*; and, after ſeparation of the corrupt fleſh, treat it by *sarcotics*, and *epulotics*, as hath been elſewhere ſaid."

To theſe remarks, in which the author ſeems to have taken Celſus principally for his model, ſucceeds a detail of eight caſes, or " obſervations;" the two laſt of which only ſeem to have been of the phagedænic kind, though he aſſumes the ſame of the reſt, from their being " difficult of cure."—His ſixth obſervation deſcribes the ſituation of " A gentleman, of about fifty years

of age, of a lean, *dry* habit of body, labouring under a corroſive ulcer, running from the leſt ſide of the upper lip near that noſtril, cloſe along the noſe, to the great *canthus*, or corner of the eye, penetrating the ſkin here and there *deeper than elsewhere:* it ſpread alſo *without the edges* of the ulcer, making, as it were, a double furrow along the ridge and ſide of the noſe, *superficially in the skin.*"

After reciting the external and internal remedies employed, he proceeds:—" By this method, I dried up the upper ulcer on the ſide of the noſe, but the cicatrices were unſeemly, as in moſt ſuch rebellious ulcers they are; we being glad to dry them in any faſhion as we may.—The other ulcers alſo filled up with fleſh, and afterwards cicatrized in ſome parts. The deepeſt ulcers were alſo well-diſpoſed to it."—After ſome ſtay in the country, during which, the remedies were perſevered in, he returned with " the ulcer much exaſperated, and diſcharging a virulent matter, it having corroded deep the whole length from his upper lip along the cheek into the great canthus, dividing the lower lid of the eye, and was paſſing between the glandula lachrymalis and the eye: it had alſo

ſpread beneath into that noſtril, and had paſſed its matter through; and, in truth, the caſe was moſt deplorable." "The topical remedies," he obſerves, "were only drying medicaments, without acrimony, which agreed well with the ulcer, but ſerved only to *palliate it*. The ulcer ſpread itſelf under that eye, fretting the muſcles ſo, that the eye was drawn by the contrary muſcles to the external canthus, and diſtorted ſo, as it was eaſy to ſee the optic nerve."—The author concludes the particulars of this miſerable caſe, by ſtating, that "The patient was attacked with the ſame diſeaſe on the other ſide, and, at laſt, fell a victim to its ravages."—The other caſe, which ſeems to fall within the deſcription of phagedænic ulceration, is the following:—

"A gentleman, of about forty years of age, of a ſanguine complection, and plethoric, had an *herpes exedens*, affecting the eyelids. It had been of ſome years growth. It began on the upper eyelid, near the *cilia*, or edge, in a ſmall puſtule, and ſpread along the edge to the external canthus, where it eat deeper into the ſkin, and by erroſion, cauſed an ulcer of a round figure, of the breadth of a ſilver penny, eating into that corner of the membrana conjunctiva, and thence the length of the lower eyelid, conſuming it down-

wards, leaving the *neighbouring parts schirrous.* Its erroſion in theſe parts was increaſed by the continual fluxion of the inflamed eye; for the upper lid, where the herpes firſt aroſe, was not ſo much concerned, the original herpes lying there, not unlike a *hordeolum.* Purging, bleeding from the external jugular vein, and iſſues in the back, were tried, and "*frontals to intercept the descent of humours;*" "but the event of this caſe, with ſome occaſional abatement and variation, was, by no means, unlike the former, for the patient, retiring into the country, with a ſupply of the remedies which had *apparently* rendered him ſervice, experienced, nevertheleſs, ſo great an increaſe of the malady, as to loſe the affected eye."

The term *cancer*, applied to this diſeaſe by Celſus, will not be thought difficult of conſtruction, when it is underſtood that this is not the only inſtance of its miſapplication by the ſame writer, who includes eryſipelas, and other external ulcerations, which have an unlimited diſpoſition to extend themſelves, in the claſs of cancers. The diſtinctions he has made of two ſpecies of phagedæna, we ſhall notice hereafter, in tracing Mr. Adams's remarks on that head.

Of the deſcription of phagedæna given by Wiſeman, in the preceding extracts, it may not be improper here to obſerve, that few who have attentively noticed the diſeaſe, will admit that it is "an ulcer with ſwelled lips." In this, however, and his deſcription of *noma*, "which eats and ſpreads without tumour," and has "a *rottenness and putrefaction*," attending it, we trace the diſcriminations of Celſus very evidently.

Of the practice recommended by either of theſe writers, nothing need be ſaid. The reader will, without difficulty, collect what is material from them; as well as obſerve what he finds diſcordant to modern notions reſpecting the treatment. The diſeaſe will, undoubtedly, be beſt underſtood by an attention to thoſe well marked caſes which ſtand upon record, and to which it will be ſufficient if we refer*.

The diſtinction of phagedæna into two diſtinct ſpecies is clearly aſcertained by Mr. Adams;

* See Hunter's Treatiſe on the Venereal Diſeaſe, part. vii. page 385; Turner on the Venereal Diſeaſe, page 248; Edinburgh Medical Eſſays, vol. i.; and vol. iii. of the London Medical Tranſactions. Theſe caſes are pointed out to our obſervation by Mr. Adams. For his excellent obſervations on them, ſee Treat. Morb. Poiſons, page 69, &c.

who, remarking on the paſſages we have quoted from Celſus, and on the general opinions of that accurate writer, ſays, "What I particularly wiſh to remark here is his deſcription and diviſion of phagedæna into *two ſpecies*. The firſt is the common phagedæna, for which he adviſes the actual cautery. The other he deſcribes as beginning with a *blackness*, or ſlough, and, if not prevented, ſpreading to the bladder*, in which ſtage no aſſiſtance can be given. If this is ſeated on the glans, near the urethra, he adviſes the ſame remedy, with proper care to preſerve the orifice of the urethra; but if the diſeaſe has penetrated deep, that the knife ſhould be uſed."—The firſt ſpecies is by no means uncommon. Wiſeman's caſes are in point, as well as the inſtance related by Dr. Donald Monro, in the London Medical Tranſactions, but particularly the latter.

The other ſpecies of phagedæna, Mr. Adams contends, is only deſcribed by Celſus; and he follows up this remark by the recital (p. 70) of a caſe, at ſome length, which fell principally

* See the foregoing extracts from Celſus.

under his own management*. In this, the diſtinction quoted from that venerable writer, is very ſtrongly marked, as Mr. Adams obſerves, in the following words:—" This caſe," ſays he, " in its firſt ſtage, is exactly deſcribed by Celſus, as the phagedæna, diſtinguiſhed by *quædam nigrities quæ non sentitur sed serpit*. It was, indeed, ſeated on the prepuce, and his directions are applicable to the glans, becauſe his principal object in them is the preſervation of the urethra. When phagedæna ſpreads in this manner, it is impoſſible to ſay how far the diſeaſe may have extended before the loſs of ſubſtance ſhews itſelf. The propriety of the direction, therefore, to *cut beyond* the diſeaſed part [*præcidendum*] in this inſtance, and to *cauterize* in the other, is eaſily comprehended."

It is greatly beyond my purpoſe to enter into Mr. Adams's reaſoning on phagedæna of the laſt ſpecies mentioned: neither could it be poſſi-

* It may not be unneceſſary to remark, that Mr. Adams grounds his diſtinction of the phagedænic from other ulcers, whoſe limits are more defined, on the circumſtance of the " callous edge and baſe," which exiſts in the latter, being wanting in the former. To this he attributes the more rapid progreſs of phagedænic ulceration. See Treatiſe on Morbid Poiſons, p. 96.

ble, within the limits I have prescribed to myself, to do sufficient justice to his ingenuity. The fact, indeed, is, that it is less my object to launch into the depths of any hypothesis, however ingenious, than to make it subservient to practical purposes; and, for this reason, I shall now proceed to consider what by practitioners have been represented as the most beneficial treatment of phagedæna in its different forms.

In our remarks on this part of the subject, it is not a little to be lamented, that we are under the necessity, not only of being concise, but, in a great measure, general; since we know of no system of practice that has been found so uniformly beneficial as to be entitled to exclusive recommendation. There are two views of the subject, however, which it is necessary for us to take. One is of the constitutional, and the other of the local changes, which we should endeavour, by the use of medicine, to produce; and in this, both the species of phagedæna already spoken of are equally concerned.

In the phagedæna producing black sloughs, there can be no doubt, but the bark, and, in most cases, opium should be resorted to; the former

eſpecially, in large and repeated doſes, ſo that the conſtitution may be invigorated as quickly as poſſible, and enabled to reſiſt the progreſs of the ulceration before it becomes ſo extenſive as to deſtroy the patient. In all endeavours of this kind, the ſtate of the pulſe will afford a ſufficient criterion; for the diſeaſe is, in fact, a ſpecies of mortification, differing chiefly from a common ſphacelus in its diſpoſition to affect parts not previouſly inflamed, and ſpreading rather ſuperficially than to a great depth.

In the local treatment, antiſeptic applications, ſuch as the fermenting poultice, are of uſe; and ſo is a mixture of equal parts of Venice turpentine and the old compound tincture of myrrh, applied upon lint. Inſtances have occurred, in which a ſolution of opium, in the proportion of a drachm to a pint of water, has been of ſingular ſervice. A ſpecimen of the practice of the old ſurgeons appears in the treatment recommended by Wiſeman, which, proceeding on the now exploded ſyſtem of the humoral pathology, is generally thought not deſerving of attention. In the phagedæna attended "with rottenneſs and putrefaction," by which is evidently meant that ſpecies which we are now con-

ſidering, Wiſeman's inſtructions are, in ſome reſpects at leaſt, worth our remembering, however their ſeverity may deter us from adopting them. Theſe, as we have already remarked, relate to the application of *detergents*, as ung. Ægyptiac. merc. præcipit. &c. alſo *caustic*, and actual cautery.

If the experience of that writer afforded any ſanction to the uſe of ſuch means, eſpecially of the latter, it is to be ſuppoſed, the good effected by them muſt have ariſen from the new action brought on being ſufficient to counteract the diſeaſed action, and thus to arreſt the progreſs of the diſeaſe; and indeed, where the conſequences are of ſo threatening a nature, there ſeems no reaſon why modern practitioners ſhould heſitate even to reſort to cauſtic and actual cautery.

Of the other ſpecies of phagedæna, the treatment is endleſs, in ſo far as even the moſt approved of our remedies barely eſcape the imputation of inefficacy. "As long as the conſtitution retains its ſuſceptibility, and the pus the property of the poiſon, the irritating cauſe will be conſtantly preſent, and ulceration or abſorption, with purulent diſcharge, will continue without

interruption, and with ſuch rapidity often, as to prevent the formation of the adheſive lamina*, or to abſorb it as faſt as it is formed." What remedies then ſhall we reſort to in our attempts to counteract this kind of progreſs in the *true* phagedænic ulcer?

A remedy much too generally approved, and promiſcuouſly employed by practitioners, is mercury. For an inveſtigation into the phenomena which attend the uſe of that mineral, ſurgery is indebted to the author we have ſo frequently cited in this part of our ſubject. It has been already ſaid, that an injudicious perſeverance in the uſe of it has, eſpecially in the *crude ſtate* of a wound, in very many inſtances produced phagedæna.

Notwithſtanding this, Mr. Adams concludes:

"That mercury is a remedy we are juſtified in trying in all caſes of ulceration that reſiſt common topical applications, and reſtorative remedies, particularly if unattended with ſlough.

* Mr. Hunter deſcribes the *adhesive lamina* as a proceſs which takes place in the formation of an abſceſs, to prevent the effuſion of the matter.—Vide Adams on Morbid Poiſons, p. 92.

" That where ulceration is *unattended with a callous edge and base,* mercury ſhould be exhibited with greater caution, and the *mercurial ſalts,* for the moſt part, preferred.

" That the *ſecondary ulcers* of ſome morbid poiſons yield to leſs mercury than their *primary* ones.

" That, in ſome inſtances, where mercury has been freely exhibited before the appearance of ſecondary ulcers, it has not prevented them. Yet, in theſe ſame caſes, when ſecondary ulcers have appeared, they have yielded to a much ſlighter mercurial irritation than was ineffectually raiſed to prevent them.

" That blotches, or ulcers, which appear after the cure of ſecondary ulcers, ſeem, in the manner in which they yield to mercury, to bear the ſame analogy to ſecondary ulcers, as ſecondary ones do to primary.

" And, laſtly, that if a primary ulcer, whether of the ſloughing or true phagedæna, ſhould, at firſt, refuſe to yield to mercury, we may be juſtifiable in attempting it a ſecond time, with great caution, either when we conceive the diſeaſe kept up by habit, or ſo far familiarized to the

conſtitution, that the novelty of the mercurial ſtimulus may be ſufficient to excite a new action, however temporary*."

Of the "mercurial ſalts," there is no preparation ſo ſuitable in the treatment of phagedæna, as hydrargyrus muriatus, the effects of which are ſo far removed from thoſe of quickſilver, in its ſimpler forms, as to have induced Sir John Pringle to deny it the character of a ſpecific in the venereal lues†.

This circumſtance renders it peculiarly eligible where we wiſh to produce, by internal remedies, a new action in any ſore; but even this preparation is to be uſed, in the caſes we are now ſpeaking of, with the greateſt circumſpection.—

* It is not to to be forgotten, that this ingenious writer's view of phagedæna has a principal reference to its occurrence in venereal caſes; the general application of his concluſions is, however, very obvious, and I regret that the limits I have propoſed to this work, do not admit of my going at length into an analyſis of his doctrine. The reader, however, may be gratified by a reference to chap. v. of the Treatiſe on Morbid Poiſons, p. 99.

† Indeed, every ſurgeon knows how rarely this preparation excites *ptyalism*.

It ſhould be exhibited in very ſmall doſes, and diffuſed in conſiderable draughts of ſome kind of fluid, as a decoction of ſarſaparilla, guaiacum, mezereon, or cinchona. From an eighth to a quarter of a grain, repeated twice, or, at moſt, thrice, in the day, I ſhould deem ſufficient.

The uſe of this remedy is ſometimes advantageouſly accompanied with the extracts of cicuta, hyociamus, belladonna, &c. which, indeed, ſeem to be as uſeful co-operants as any that can be choſen. It frequently happens, however, that the mercurial ſalts are not merely ineffectual, but pernicious, and that the phagedænic diſpoſition threatens to grow more conſiderable during their exhibition. The diſcontinuance of this plan then becomes a matter of courſe, and in lieu of the muriated quickſilver, it may be adviſable to make trial of ſome of the vitriolated metals, more eſpecially thoſe of iron and zinc, as being leſs innoxious than copper, &c. and, of courſe, admitting of a more liberal and long continued exhibition. The *ferrum ammoniacale* is alſo a remedy of great efficacy, and may be given to a very conſiderable extent*; yet I have found

* Mr. Juſtamond gave it, in ſome caſes of cancer, in the doſe of two drams in a day.—Vide Surgical Tracts, p. 323.

the *tinctura ferri muriati* to the full as effectual when the narcotic vegetable extracts have been given at the ſame time.

Of *arſenic*, a remedy, it muſt be confeſſed, of conſiderable powers, but dangerous in its exhibition, in almoſt every form, I ſhall ſay little at preſent; as ſome general remarks on it will be neceſſary when we come to ſpeak of the cancerous ulcer, for the treatment of which, it has been thought more particularly applicable. Internally, I know of no preparation of arſenic ſo little dangerous as that with kali; and externally, none more ſerviceable than that with antimony; from a very ſlight application of which, I have occaſionally ſeen a favourable change produced in the action of ſuperficial phagedænic ulcerations.

Some of the remedies uſed internally are alſo good as topical applications. We have already mentioned arſenic in this view, but the obſervation applies yet more cloſely to the extracts of the narcotic vegetables, eſpecially when combined with ſome of the neutral ſalts, as vitriolated magneſia, &c. or with borax, which will now and then be found to anſwer a good purpoſe. Muriated quickſilver comes alſo within the ſame

deſcription. If diſſolved in a few drops of muriatic acid, and afterwards diluted ſufficiently with diſtilled water, it ranks with the beſt of our topical remedies, not only in the ulcer of which we are treating, but in common ulcers, where a ſtimulus is wanting.

In the phagedænic ulcer, we often find that the ſame remedies will ſucceed beſt in the form of a poultice. Arſenic may ſometimes do more ſervice when applied after this manner, than in the way we have mentioned above. One grain being diſſolved in diſtilled water, and the ſolution carefully filtered, a cataplaſm may be made, by the addition of bread crumbs and linſeed meal. It is almoſt needleſs to add, that the application muſt be made to the bare ſurface of the ulcer, without any intervening dreſſing of lint, &c. which, however, ſome ſurgeons think ſhould never be omitted*. The arſenical poultice will, in all likelihood, give conſiderable pain, and require to be removed ſooner than any common

* This, indeed, is to be regulated according to circumſtances; ſince, as has been obſerved in ſpeaking of common ulcers, different parts of a ſore will ſometimes require to be *protected* from the effects of any general application we may uſe.

application; but it will often change the action of the ſore, and, for a time, at leaſt, produce healthy appearances. Another beneficial kind of poultice, in ſimilar caſes, is the *cataplasma effervescens* already ſpoken of. The carbonic acid, which is gradually extricated from it, and brought into contact with the ulcer, has, in various inſtances, proved of ſervice. A ſolution of common ſoap, formed into a cataplaſm, has alſo its merits; though, like any other remedy the practitioner may adopt, it is not equally uſeful in all caſes.

There are, beſides, a variety of topics, which may be uſed in the form of a powder, with ſome chance of advantage. Hydrargyrus nitratus ruber, prepared verdigriſe, and ſome of the narcotic vegetables, in a pulverized ſtate, are of this kind. Rhubarb, columba, and ſquills, though more efficacious in promoting the healing of the common ulcers of long ſtanding, are alſo worthy of a trial; for where all is uncertainty, the remoteſt hope even ſhould be encouraged.

It is to be obſerved, that in the application of remedies ſo oppoſite in their apparent tendency, there is great room for the exerciſe of the ſur-

geon's judgment and diſcretion. To thoſe phagedænic ulcers, which affect the ſurface chiefly, "ulceration going on in the ſurrounding ſkin, while a new ſkin forms in the centre, and keeps pace with the ulceration, exhibiting an irregular ſore, like a worm-eaten groove, all round," thoſe ſtimulating topics, which tend to alter the action of parts, may be uſed with leſs reſerve; while, on the other hand, the treatment of thoſe caſes, in which the ulceration is diſpoſed to penetrate, and where a great degree of inflammation, pain, and irritation ſubſiſt, muſt, of courſe, be managed with greater delicacy. Notwithſtanding this, it is to be obſerved, that the exiſtence of pain and irritation, which frequently ſeem to be aggravated by mild, relaxing, and more particularly greaſy applications, is no reaſon why ſharp remedies ſhould not be made choice of; but rather the contrary, ſince, in overpowering the diſeaſed action, which may have become habitual in the ulcer, we often exerciſe the only means of effecting a cure.

In the phagedænic actions, which, in many caſes, ſucceed thoſe of the venereal poiſon, or rather of the poiſon of the mercury, almoſt all the remedies we have named have been occa-

ſionally tried. Mr. Hunter, indeed, ſpeaks very fully of them*, and intimates, among other means of treating buboes which have become phagedænic, a practice uſual at the Lock Hoſpital, of applying gold-refiner's water to them.—He alſo mentions the mezereon as a uſeful medicine, in ſome inſtances, and the copious internal exhibition of the juice of oranges, as recommended by Dr. Fordyce.

Thoſe, indeed, who read with attention that invaluable work in which theſe hints appear, will anticipate much of the information we have been able to convey, as to the remedies poſſeſſing a greater or leſs ſhare of conſequence in the treatment of phagedæna.—For this reaſon, we ſhall not extend this part of our ſubject farther than to remark, that the greateſt uncertainty exiſts as to the effects even of the moſt reputed of our remedies; and that a patient and perſevering trial of each in ſucceſſion, will often be neceſſary, before any will be attended with the ſalutary conſequences for which we are anxious.

* Treatiſe on the Venereal Diſeaſe, part v. chap. v.

§ 5. *Of the Cancerous Ulcer.*

THAT kind of ulcer which authors have choſen to diſtinguiſh by the appellation of *cancerous*, is a diſeaſe very different from that to which the term properly belongs. It is ſuppoſed to ariſe from ſome exiſting virus in the conſtitution, to attack the ſkin more commonly than any of the deeper ſeated parts, and to appear in the face more frequently than in any other part of the body. Thoſe who have attempted a deſcription of this ulcer, as diſtinct from the true cancer, have certainly been miſled by the anomalous character which moſt unmanageable ulcers are apt to aſſume; and have only uſed the term *cancerous*, becauſe none more appropriate ſeemed to preſent itſelf; for certainly that diſeaſe, which they deſcribe as cancer, can have no pretenſions to the name, were it only from the mere circumſtance of its being, in many inſtances, *curable*.

This kind of ulcer " is a malignant, corroding ſore, upon the ſkin, the ſurface of which is gloſſy and ſhining, and furniſhes an offenſive and

ichorous diſcharge. It partakes of ſome of the ſhooting, lancinating, darting pain of the cancer; though not nearly in ſo great a degree. But the great *diſtinction* between that and the *true cancer* is, that its *edges* are not *indurated* and *tucked in*, or *inverted*, as thoſe of the true cancer. The true cancer cannot be cured without extirpation; the *cancerous ulcer* very frequently admits of a cure. The latter, now and then, makes its appearance after the venereal chancre, for the corroſive, creeping, and malignant ulcer, that comes on after that complaint, is of this kind."

In theſe terms has one of the moſt eminent of the public teachers of the practice of ſurgery ſpoken of what has been uſually called the cancerous ulcer; but though, in his deſcription of it, there is no deviation from what may be ſuppoſed the received opinions on the ſubject, it is by no means difficult to perceive, that this kind of ulcer has not the remoteſt alliance to cancer, and certainly has therefore been improperly hitherto conſidered as a ſpecies of carcinoma. Although the pain is deſcribed as *lancinating*, like that of cancer, yet two of the ſtrongeſt characters of the latter diſeaſe are wanting, namely, the incurvated, or expanded ſtate of the edges, and the *uniformly fatal* event.

But if any thing farther were neceſſary to ſhew the erroneous grounds on which an ulcer that is not a cancer is termed cancerous, it would be found in the concluding lines of the foregoing deſcription, where that ſpecies of ulcer which ariſes from the action of a morbid poiſon on the penis, and which we have already ſpoken of in the ſection on phagedænic ulcer, is confounded with cancer. After ſtating theſe reaſons, we ſhall not be expected to accede to a diſtinction in itſelf ſo clearly fallacious; but rather to apply ourſelves to the conſideration of the true cancer in its ulcerated ſtate; not, it muſt be confeſſed, with the vain hope of wholly *preventing* its *ultimate conſequences*; but, at leaſt, with a view of retarding its progreſs, alleviating its violence, and contributing to render ſomewhat leſs irkſome the lives of thoſe who are unfortunately the ſuffering victims of this dreadful malady.

By the term *cancerous ulcer*, then, we mean a cancer in its advanced ſtage; when the diſeaſe ceaſes to be what is called *occult*.

Of the progreſſive ſteps by which this cruel diſeaſe advances to that ſtate, we ſhall here ſay a few words by way of introduction. When this diſeaſe takes place in glandular parts, and parti-

cularly in the breaſts of women, a number of hard chords are found to extend themſelves in different directions from the principal tumour. To this circumſtance, which preſents to the imagination the idea of a reſemblance to a *crab*, is owing the name by which the earlieſt writers have diſtinguiſhed a complaint, for which, indeed, nothing more appropriate can be deviſed ſo long as we remain, as at preſent, ſo entirely in the dark reſpecting its true nature.

As theſe hard chords, which are nothing more than inflamed and hardened abſorbent veſſels diverging from the principal tumour, were obſerved by the ancients to occur in other ulcerations than thoſe to which, in our days, the term cancerous is confined, it became common with them to conſider as cancers various complaints, which, in the more improved ſtate of ſurgery among the moderns, were afterwards placed in a very different claſs.

When a hard tumour, which has exiſted a long time in the breaſt, without either diminiſhing or encreaſing, and without giving any pain, begins at length to grow uneaſy, to extend gradually in its dimenſions, and to be affected

with occaſional pungent and *lancinating* pains, there is reaſon to ſuſpect that it is taking on the cancerous action. This is not, however, invariably the caſe; ſince many inſtances have occurred, where the tumour has fallen into a ſtate of inflammation, and even been attended with that peculiar kind of pain which moſt of all is to be ſuſpected, and yet the diſeaſe has not proved to be of that fatal nature, but the patient has received a certain, though tedious cure. Theſe inſtances, when they do occur, are eagerly laid hold of by quacks and the venders of noſtrums; and are advertiſed as inſtances of the efficacy of their plans, which unwary perſons, really affected with cancer, are ſometimes drawn in to make trial of, at the expence, perhaps, of the only reſource which remains for their ſecurity.

The lips, the tongue, the face, the penis, and teſticles, are the moſt common ſituations of cancer in men: in women, it is uſually confined to the breaſts, the uterus, and the rectum; though, in either ſex, any of the ſoft parts may be attacked by it.

The diſeaſe does not put on the ſame appearance in every inſtance, but, in common with

ſome other local affections, is ſo far influenced by the peculiarity of ſtructure of the part affected, as to exhibit very diſtinct appearances. Theſe, indeed, have borne ſo little reſemblance in ſome inſtances, as to have tempted practitioners to deny that the general term cancer could be ſtrictly applied to them. The cancer of the uterus, at leaſt, has been thought a very fair exception*; and not only that of the rectum, but every carcinomatous affection which begins on the ſkin, or parts ſuperficially ſituated, ſeems clearly diſtinct from the ſame diſeaſe in the breaſts or other ſecreting glands.

A preceding or preparatory ſtage of this diſeaſe authors have diſtinguiſhed by the name of *ſchirrus* The ſchirrous ſtate of a gland is that in which the tumour gives no uneaſineſs, and, in which, the ſkin does not loſe its natural colour. Every indurated and inſenſible tumour in a gland is, therefore, ſtrictly ſpeaking, a ſchirrus: the term, however, is never applied to ſuch affections, unleſs they threaten to terminate in cancer.

* See Adams on Morbid Poiſons, p. 177.

There are ſome diſeaſes which appear to have a ſalutary effect on the human body, and many which, though injurious, are nevertheleſs removeable by the efforts of nature herſelf; but, unhappily, there are ſome alſo whoſe career ſhe ſeems to have no means of impeding, and which, if not within the reach of our art to remove, prove invariably deſtructive of human life. Nature herſelf is, in various inſtances, ſufficient to the removal of indurated tumours of the glands; thoſe, at leaſt, which are *simple* in their nature, and not produced by any inherent or communicated *virus*. In hard tumours of the milk-breaſt, her exertions may take place without the patient's adverting to them, and may prove ſucceſsful; yet in ſome the painful proceſs of ſuppuration becomes indiſpenſible. Where the latter fails to take place, however, for want of ſufficient vigour in the conſtitution to produce phlegmon, and where the coagulated milk remains unabſorbed for a period, perhaps, of ſeveral years, it is natural to ſuppoſe, that it will acquire ſome malignant properties in the end, and that diſeaſe will be the conſequence. When a hard tumour of this kind ſubſiſts, it may or may not lead to conſequences of a ſerious nature. Happily, in far the greateſt number of inſtances, nothing

miſchievous occurs: but where any farther morbid change begins to take place, it is materially incumbent on the patient to be watchful, and, if neceſſary, to ſet an example of ſalutary fortitude to others in the ſame predicament, by ſubmitting even to the moſt ſevere method by which a fatal termination may, in almoſt every inſtance, be prevented.

Women, who have become mothers, in many ſucceſſive inſtances, thoſe eſpecially who have unnaturally withheld their milk from their offſpring, are more particularly liable, for obvious reaſons, to indurations of the breaſts. Thoſe glands being repeatedly called into action by pregnancy and its conſequences, are expoſed to danger in proportion as the inſtances are numerous; and, perhaps, there is no means of avoiding the poſſible bad conſequences of a retention of the coagulated milk equal to the natural one of giving ſuck; a practice, to which it is equally the duty and intereſt of every mother to conform.

Where theſe duties, however, have been neglected, and even where they have been ſtrictly performed, (for this diſeaſe will happen in either

caſe, though the chance of it in the former is not, probably, ſo conſiderable) an indurated ſwelling may take place, and remain, perhaps, without alteration till the arrival of that period of life when the breaſts (independant of pregnancy) are brought a ſecond time into a ſtate of ſympathy with the uterus, namely, when the *menses* are about to be diſcontinued.

The great caution required at that particular criſis is well known to the ſex, and to every medical practitioner; for it is then when ſome important changes, either of a ſalutary or morbid tendency, are wrought in the female conſtitution. Either nature effects her purpoſe in a lenient and favourable manner, or the latent ſeeds of ſome diſeaſe are ripened into maturity, and ſome chronic malady is eſtabliſhed, which either cuts ſhort the patient's exiſtence, or makes it painful to her; and happy is ſhe, if Providence avert from her the lingering afflictions of a cancerous affection of the breaſt or uterus.

With regard to the latter diſeaſe, although it forms no part of our plan to treat of it in this place, I cannot help hazarding a conjecture, which I think will not prove wholly unſupported

by facts: ſome, indeed, have fallen within my own knowledge, ſufficiently ſtriking to juſtify at leaſt, I will not ſay an opinion on the ſubject, but a query, which practitioners may anſwer to themſelves as they think proper;—Is there not a probability that the practice of ignorant midwives, of dilating the mouth of the uterus during labour, by which it may fairly be preſumed *laceration* ſometimes happens, is among the cauſes which occaſion cancer? Whenever this happens, as lacerated parts cannot unite by the firſt intention, but a ſloughing of their whole ſurface muſt take place, is it not poſſible, that, whilſt this proceſs is going on at the ſame time with that of the diminution of the uterus, an irregular cicatrix may be formed, and that cicatrix ſubject to a new laceration on every ſubſequent parturition? If theſe may be anſwered in the affirmative, it does not appear to me difficult to conceive that ſuch a thickening or morbid alteration of ſtructure in the part may take place, as, in the evening of life, may end in a cancer of the uterus.

To this ſuppoſed cauſe, may we not alſo add the retention, which it is poſſible may occur, of ſome ſmall portion of the membranes? For though the lochia are evidently deſigned by

nature to waſh away whatever, by being retained, may, one time or other, become capable of acting as a virus on the part, we well know that theſe ſalutary diſcharges are, in many inſtances, very ſparingly produced; and they may, of courſe, be inſufficient to the propoſed end.—That the long retention or confinement, in any part of the body, of any excretion or excrementitious ſubſtance which nature deſigned to expel from the body, may render ſuch ſubſtance a poiſon to the animal, is not difficult to imagine. I am aware, indeed, that ſome facts may be adduced that appear to militate ſtrongly againſt this ſuppoſition. Among theſe, the powers of the conſtitution in removing large extravaſation of blood, and of abſorbing aneuriſmal tumours, rank foremoſt. The caſes on record, of extra-uterine geſtation, alſo ſhew to what an extraordinary length nature will extend her efforts to prevent the evil which muſt otherwiſe reſult from her own deviations*. But it is not in theſe extenſive inſtances that I conceive the poſſibility of future miſchief to exiſt. Where blood (which,

* My friend, Dr. Cheſlon, is in poſſeſſion of an extra-uterine fœtus, which, with the inveſting membranes, became completely oſſified, during its retention in the abdomen of the mother for a period of *forty* years!

by the way, poſſeſſing *life* in itſelf, and being alſo capable of *organization*, is, on thoſe accounts, hardly a proper ſubject of compariſon in the preſent caſe) is diffuſed in ſuch quantity as to be beyond the power of the ſurrounding abſorbents to diſpoſe of, its qualities degenerate; and ſome, at leaſt, of the changes, which blood would undergo if placed in the ſame degree of heat out of the body, take place, and an abſceſs is occaſioned by the irritating quality it has acquired in its confinement.

Now if blood, the fluid moſt congenial, as has juſt been obſerved, to the animal ſolids, is capable of producing, comparatively, in ſo ſhort a period, an injurious effect upon them, is it any thing improbable, that a minute quantity of any fluid originally inactive, yet capable of a more deleterious change, after being retained till that period when the declining powers of the conſtitution no longer are capable of reſiſting its effects, ſhould eſtabliſh a diſeaſe deſtructive of the part on which it is ſituated? It will be ſaid, perhaps, that this reaſoning does not apply to the *ſolid* ſubſtance which I have introduced within the ſphere of this general conjecture, as to the poſſible cauſes of cancerated uterus. But the ob-

jection is eaſily anſwered, ſince the natural change of a ſolid animal ſubſtance, retained under ſuch circumſtances as I have ſuppoſed, is a change (ſlowly performed, it may be admitted) from a ſolid to a *fluid* ſtate; yet, if the contrary were the caſe, I do not ſee that any oppoſite concluſion would reſult.

That animal bodies are capable of producing poiſons that will act with ſome ſeverity on the bodies of others, of the ſame ſpecies, a late writer has, I think, indiſputably ſhewn*. That our own bodies are capable of generating poiſons capable not only of temporary, but permanent miſchief to ourſelves, I alſo conceive may be juſtly ſuſpected. I ſhall not, however, purſue this digreſſion any farther, though it will, probably, occupy me on ſome future occaſion.

When a ſchirrous tumour has advanced to a cancerous ſtate, the hardened ſubſtance takes on ſome degree of irregularity; and not only becomes more or leſs attached to the part on which it grows, but advances, in a certain degree, towards the ſkin, which, even whilſt lax, partici-

* Vide Adams on Morbid Poiſons.

pates in the diſeaſe, and forms a kind of tucking in, or fiſſure. At this part the alteration commonly begins, which gives the diſeaſe the name of an *open* (in oppoſition to the term *occult*) cancer; and from this breaking kind of ſtate, it gradually proceeds to ſuch a proceſs of ulceration, and conſequent diſcharge of matter, as calls for the daily renewal of ſome kind of external dreſſing.

It is not uncommon with practitioners who have few opportunities of marking the progreſſive ſteps by which the cancerous ulcer is eſtabliſhed, to conſider as ſuch other kinds of ulceration, (particularly of glandular parts) which have a ſtrong degree of malignity in themſelves, and have alſo reſembled cancer in their ſpontaneous beginning, their ſlow progreſs, and the pain they have been attended with. Hence we ſee the importance, not only of obtaining from the patient an accurate and circumſtantial hiſtory of the complaint, but alſo of being able to diſtinguiſh which of his ſymptoms are, and which are not, fairly referable to cauſes of a cancerous nature.

It is not in every caſe, however, that the progreſs of a cancerous affection is ſlow; for, al-

though in the generality of inſtances, a period of ſome years elapſes before it paſſes through its preparatory ſtages, in ſome habits the diſeaſe becomes compleat even in the courſe of a few months. In ſuch caſes, there are ſucceſſive and violent attacks of local inflammation, and the conſtitution alſo ſuffers by a correſponding degree of fever; each apparently acting in ſucceſſion as cauſe and effect: for it is by no means uncommon to find the fever preceding the renewal of the local inflammation. That the ſyſtem is very materially concerned in cancerous affections, is evident from the looſe texture of the blood which has been found to prevail in perſons prediſpoſed to it. On this principle, perhaps, we may account for the diſpoſition to hemorrhage ſo prevalent in the open ſtate of cancer, and likewiſe for the extraordinary acrimony, corroſiveneſs, and peculiar fœtor of the diſcharge.

A conſiderable diſcharge of this kind generally takes place even before the ulceration can be ſaid to have any extent of flat ſurface. Dr. Adair Crawford, in the Philoſophical Tranſactions, vol. 80, page 391, has given an account of ſome experiments, made with a view to detect, by chemical agency, the nature of cancerous

virus; and I ſhall here conciſely mention their reſult.—It appears,

" 1. That the appearance of a powerful *volatile alkali* is detected in the diſcharge.

" 2. That with this alkali, there is united an *aërial fluid*, poſſeſſing the chief properties of *hepatic air*.

" 3. That by the combination of theſe principles, a ſort of *hepatised ammonia* is formed, on which the *deleterious nature* of the matter depends." A " peculiar offenſive fœtor" in the diſcharge; " the ſwelling of the contiguous lymphatic glands;" and, laſtly, " the corroſion of veſſels;" are indications of the exiſtence of the real cancerous poiſon; and ſo great are its powers of corroding, that they act not only on the animal fibre, but even on metals. The celebrated Van Swieten alledges, that he has ſeen the texture of linen rags as completely deſtroyed by it as if they had been moiſtened with nitrous acid; it is not very uſual, however, to witneſs theſe effects in common caſes.

The experiments of Dr. Crawford on this intereſting ſubject, naturally led him to ſome

conjectures as to the remedy which ſhould be employed to counteract the cancerous virus.—Of this we ſhall conciſely take notice in the courſe of what we have to obſerve on the treatment; and to render that part of the ſubject more explicit, it will not be amiſs to recur to the preciſe definition of what we conſider* as the true cancerous ulcer, and what alone ought to go by that name.

"A *cancerous ulcer* is attended with a conſtant ſenſe of ardent pain: it is irregular in its figure, and commonly preſents an unequal ſurface; it diſcharges a ſordid, ſanious, and fetid matter: the edges of the ſore are thick, indurated, and often exquiſitely painful; they are ſometimes inverted, at other times retorted, and often exhibit a ſerrated appearance. The ulcer, in its progreſs, is frequently attended with hæmorrhages, in conſequence of the eroſion of blood veſſels."

As the diſeaſe, when arrived at the ſtate here deſcribed, can only be ſucceſsfully combated

* With Mr. Pearſon.—See his Practical Obſervations on Cancerous Complaints, p. 78.

through the medium of the conſtitution; and as none of the many remedies propoſed have, on trial, been found to merit our confidence, it would be a waſte of time even to enumerate them; we ſhall, therefore, dwell principally on the local treatment, from which we may hope to procure for the patient ſome temporary advantages at leaſt.

Our object, then, will be:—1ſt, To alleviate the violence of the pain:—2dly, To amend the diſcharge, or, at leaſt, correct its fetor:—3dly, To retard the extenſion of the ulcer:—4thly, To reſtrain occaſional hemorrhages, and prevent their debilitating the ſyſtem. Let us conſider theſe ſubjects in the order in which they ſtand.

1. The remedies capable of alleviating the violence *of the pain*, are both internal and local. Of the former, not only opium, but moſt of the inferior narcotics, have been variouſly adminiſtered with conſiderable temporary effect. It is expedient, indeed, at almoſt all events, to carry the uſe of theſe remedies as far as the immediate ſafety of the patient will admit; not forgetting, that, in the alleviation of pain, is, perhaps, involved the prolongation of life; for debility, the

gradual increaſe of which marks the progreſs of cancer to its fatal termination, is greatly increaſed by long continued and violent pain.

It is to this property alone in the different narcotic vegetables, that many practitioners attribute their ſuppoſed virtue in cancerous diſeaſes. Pain not only abſtractly, but relatively, impairs the body. Its ſtimulus is not merely attended with direct morbid conſequences, but tends alſo indirectly to the patient's injury, by deſtroying the appetite, and producing the moſt afflicting ſtate of mental dejection.

It would be a reproach to any one in the leaſt converſant with medical affairs, to enter at any length on the mode in which hemlock, and other vegetables of the ſame claſs, require to be exhibited; I ſhall, therefore, paſs over the ſubject ſimply by enumerating them, and afterwards ſpeak of the local applications beſt calculated to diminiſh pain. The narcotic vegetables, excluſive of opium, are *cicuta**, *aconitum*, *hyosciamus*,

* "On the medicinal properties of hemlock, a great diverſity of opinions have been maintained; and for this there is a mode of accounting, of which few, perhaps, are aware.

"According

and *belladonna*†. Extracts from them, accurately prepared, may be administered, from small beginnings to a dose sufficiently considerable to blunt the feelings of the patient, and render the pain of a cancerous ulcer very trifling, in many

" According to some writers, but more particularly Dr. Withering, *there are several ways in which the views of a medical practitioner*, in prescribing this remedy, *may be frustrated*. The plant chosen for preparing the extract may not be the true *conium maculatum*, which is distinguished by red spots along the stalk. It may not be gathered when in perfection, namely, when beginning to flower. The inspissation of the juice may not have been performed in a water-bath, but, for the sake of dispatch, over a common fire. The leaves, of which the powder is made, may not have been cautiously dried, and preserved in a well-stopped bottle; or if so, may still not have been guarded from the ill effects of exposure to the light. Or, lastly, the whole medicine may have suffered from the mere effects of long keeping. From any of these causes, it is evident, the powers of cicuta may have suffered; and it happens, no doubt, very frequently, that the failure of it ought, in fact, to be attributed to one or other of them."—PHARM. CHIRURG. 3d ed. p. 113.

† To this list a late writer has added the distilled water of *lauro-cerassus*, and *nux vomica*. He has, however, done little more than name these remedies. The former, it seems, was tried without success by Professor Richter, of Gottingen; yet whilst the effects of it on the human body remain unascertained, a farther trial, it is to be hoped, will be made of it, not only in this, but other diseases, for which, at present, no means of cure are known.

inſtances, and, in ſome, with evident advantage to the ulcer itſelf.

The external remedies to be had recourſe to in theſe caſes, are much more various. They conſiſt, chiefly, of two deſcriptions, to wit, the emollient, and the ſedative; and their modes of application admit likewiſe of being conſiderably varied. Beſides employing ſtrong infuſions of the narcotic vegetables already mentioned, either in the form of fomentation and poultice, or by plegits of lint dipped into them, we may add to the liſt an infuſion of tobacco, a plant poſſeſſing, perhaps, the moſt powerful ſedative virtues of any that have been named. Emollient remedies that are ſimply ſuch, are leſs worthy of our choice than thoſe laſt mentioned, which anſwer both intentions.

Where the uſe of fomentations and poultices happens to be ineligible, great eaſe may be procured by ſprinkling the ulcer copiouſly with a fine powder of the leaves of cicuta. Sometimes the farina of malt alone will have the ſame effect; and the uſe of remedies in this particular form has this great advantage, that they abſorb the acrimonious diſcharge, and thereby prevent

much pain, which, from that cauſe alone, would be felt by the patient.

On ſome occaſions, it has been ſaid, a ſolution of aſſa-fœtida has been found not only to give eaſe, but to benefit the ulcer. The ſame may be ſaid of cold-drawn linſeed oil, in which a ſmall portion of camphor is diſſolved. Other practitioners have recourſe to thick ſolutions of the narcotic extracts; joining with them a due proportion of ſal ſedativum. Where any of theſe are tried, the mode of application is by plegits of lint dipped into the mixture, and renewed according to circumſtances.

But a remedy capable of affording much relief, not only in this, but almoſt in every view, is the application of a bliſter at ſome little diſtance from the ulcer. Where the pain occurs in a violent degree, it is generally brought on by ſome freſh attack of inflammation, and the bliſter, by exciting a powerful ſtimulus in its neighbourhood, will frequently have the effect, common to the ſame remedy in other caſes, of drawing off inflammation, and conſequently the pain.

2. Of remedies which are calculated *to amend* the diſcharge, and correct *its fætor*, the number,

correctly ſpeaking, is very limited. They all conſiſt of ſubſtances poſſeſſing antiſeptic qualities; ſuch as poultices prepared of turnips, carrots, &c. boiled and maſhed; the efferveſcing cataplaſm*; or, what is beſt of all, *carbonic acid* vapour, (fixed air,) applied by an apparatus ſimilar to that lately recommended, with a curative intention, by Dr. Ewart†.

The bruiſed leaves of freſh hemlock are alſo ſerviceable in this view; as is, likewiſe, the ſolution of camphor in linſeed oil, mentioned above. Some have tried decoctions of aſtringent vegetables, particularly cinchona.

It is here proper to mention the chemical preparation that Dr. Crawford conceived moſt likely to deſtroy the cancerous virus, which he had found to conſiſt in an *hepatised ammonia*.—"His hopes," ſays Dr. Niſbet, "were chiefly founded on the *oxygenated muriatic acid*, diluted with thrice its weight of water, which, by this dilution, gives little pain to caſes that are not highly irritable. In ſome inſtances, he found that it *corrected the fætor*, and *amended the dis-*

* Cataplaſma efferveſcens of the Pharm. Chirurg.

† See his account of caſes treated by him at Bath.

charge; but its good effects were by no means uniform, for it failed entirely in many others.—Its operation is ſtill, therefore, a matter of equal uncertainty with moſt other applications in this diſeaſe. How far this acid is to be ventured on internally is to be doubted; and alſo, if uſed internally, whether it would produce any ſtronger effect than any other ſimple acid."

Though there cannot be a doubt but theſe objections are well founded, as far as relates to the internal uſe of oxygenated muriatic acid, it may, nevertheleſs, as an external application, anſwer the end, to a certain extent, of correcting the fœtor, which is extremely offenſive to the patient, and even injurious, ſince the effluvia entering the lungs along with the atmoſpheric air, greatly injures the purity of the latter.

3. To *retard the extension of the ulcer*, is, perhaps, a taſk of little leſs difficulty than to effect its diminution; and muſt conſiſt in an union of the means which we propoſe to point out as requiſite to the ſeveral indications. To retard the progreſs of a diſeaſe, we muſt adopt all the methods that have a tendency towards its cure; and therefore, in the inſtance before us, we are

called upon to employ not only external, but internal remedies, and alſo to attend to diet, exerciſe*, and every circumſtance by which vigour may be imparted to the conſtitution, and the general health of the body maintained.

Of the internal remedies moſt beneficial to a cancerous ulcer, and which have not been already taken in another view, there remain only two to which the ſmalleſt efficacy can be juſtly attributed; and, unhappily, we are almoſt wholly precluded from the uſe of one of them, by the danger which invariably attends its exhibition. The two remedies I ſpeak of are arſenic and iron. Of the effects of the former we have very copious accounts in the writings of the late Mr. Juſtamond, and many others. Theſe are ſufficient almoſt to prohibit the uſe of arſenic entirely in *any* caſe; yet as ſome may be of a different opinion, I will, at leaſt, here point out a preparation of it certainly liable to fewer objections than any other; I mean that uſed at St. Bartholomew's Hoſpital, under the name of *kali arsenicatum*†.

* A kind of exerciſe very ſuitable for perſons emaciated by a painful diſeaſe like cancer is *swinging*.

† Vide Pharm. Noſſocomii, St. Barthol. or Pharm. Chirurg.

With regard to the uſe of iron, it may truly be ſaid, that it has a very conſiderable effect in ſupporting the ſyſtem, and leſſening debility; and it will even produce very flattering appearances in ſome cancerous ſores, more eſpecially thoſe of the face. The author laſt quoted has detailed very much at length the reſult of his trials of that preparation, called *ferrum ammoniacale**: it is, of courſe, ſuperfluous to enter upon the ſubject here; yet it is neceſſary, perhaps, to mention his having alſo employed a ſpirituous preparation of the ſame metal† as a *topic*, and, in many caſes, with the evident effect of *retarding the extension of the cancerous ulcer.*

This preparation, made according to a German recipe, was unneceſſarily elaborate; and, except in point of cleanlineſs of application, poſſeſſed no advantage over the *tinctura ferri muriati*, which Mr. Juſtamond afterwards employed as a ſubſtitute. This tincture is recommended to be applied with a camel's hair bruſh upon the

* See the Treatiſe on Cancerous Diſeaſes, in Juſtamond's Surgical Tracts, 4to. page 322.

† Ibid, page 364.

thick curling edges of the ſore, and to ſome little diſtance around it; dreſſing the ulcer itſelf with any other remedy that the ſtate of it might ſeem to require.

Among the means of retarding the progreſs of the ulcer, we may alſo very properly reckon the occaſional application of bliſters, in the manner already mentioned; and alſo the uſe of the *arsenical caustic**, from time to time, to ſuch parts of the ulcer, or of its edges, as are particularly ill-conditioned.

It muſt be admitted, indeed, that the uſe of active cauſtics, as a means of *retarding a cancerous ulcer*, ſhould be adopted with great circumſpection. Whatever creates active inflammation, ſpreads the cancerous poiſon in an equal proportion; and unleſs we can qualify our applications in ſuch a way as to deſtroy *without inflaming*, (which cannot but be a difficult, if not an impoſſible taſk,) we ſhall run ſome riſque, not only of adding to the patient's preſent ſufferings, but alſo of ſpreading the miſchief to parts not before affected by the diſeaſe.

* Ibid, page 352.

In many common ulcers, however, and ſometimes in the cancerous ulcer, there exiſt parts which, poſſeſſing leſs of life than the ſurrounding ſubſtance, may be deſtroyed by a prudent management of the cauſtic, without producing much irritation. There is ſome difficulty too in the applications we may ſelect for this purpoſe; and we have alſo the means of qualifying them by the mixture of other ſubſtances capable of adding to that diſpoſition in certain parts of the ulcer, which we have deſcribed as favourable to the inſenſible operation of a cauſtic. Theſe ſubſtances are not merely ſuch as weaken its powers in proportion as they extend its bulk, but ſuch as act ſpecifically on the animal fibre, and by diminiſhing its life yet more conſiderably than before, render it a prey to the eſcarotic properties of the compoſition, with only a ſlight degree of inconvenience to the patient.

The cauſtic moſt adviſeable in this view, therefore, is a mixture of certain proportions of antimoniated arſenic*, opium, and camphor, the proportions being regulated according to the degree of irritability and ſenſibility exiſting in the

* *Arsenicum antimoniatum* of the Pharm. Chirurg.

part deſtined for its action. The additions to the cauſtic ſhould, at leaſt, be equal to two-thirds of the bulk of the whole; and the proportion of opium ſhould be about double that of the camphor: but all theſe circumſtances muſt be matter of diſcretion with the practitioner, as muſt alſo the extent of ſurface to be attacked, the intervals to be allowed between each ſucceſſive application of the cauſtic, &c.

We ſhall cloſe this part of our ſubject by ſhortly remarking, that, among the remedies which have been ſuggeſted for the improvement of cancerous ulcers, the internal uſe of the juice of the well known plant, called *goose-grass*, is not unworthy of a trial. It ſhould, however, be given to ſome extent, and continued for a conſiderable time, before any favourable effects are to be expected*.

* The reader will, probably, have expected, that in the enumeration of remedies worthy of a trial in the cancerous ulcer, the *hemlock bath* would not be forgotten; but as its uſe is moſtly confined to the cancer of the *uterus*, and as the ſpecific effect of the hemlock is not more conſiderable in this way than when taken into the ſtomach, it appeared to be unneceſſary to make mention of it. Thoſe who are curious to ſee the reſult of many trials of the hemlock bath, may be gratified by conſulting Mr. Juſtamond's Treatiſe already referred to.

4. The laſt object of our enquiry is after the means of *reſtraining hemorrhages* from the cancerous ulcer; and this may be included in a very few remarks. When a cancerous ulcer is greatly advanced, and the matter it diſcharges is highly corroſive, the ulceration is not confined to the muſcular fibres of the part, but preys alſo upon the blood-veſſels, and every other ſubſtance in its way.

In cancers, as well as in moſt other local diſeaſes in which an unuſual quantity of blood is derived to the part, both the arteries and veins become conſiderably enlarged. Even the veins, when their coats are corroded, will give vent to conſiderable quantities of blood; but when a branch of an artery is partially deſtroyed, the hemorrhage becomes far more ſerious; and it very often happens, that a repetition of bleeding from this cauſe, joined to the pre-exiſting conſtitutional debility, carries off the patient. Nor need we wonder at this: the artery thus affected, being buried in a diſeaſed maſs, cannot be ſecured by an operation, as in common caſes; while, on the other hand, its being *partially*, not wholly, divided, prevents the uſual natural cure of hemorrhage from ſmall arteries by ſpontaneous contraction. Its ſituation admits not of

preſſure, which, indeed, the indurated ſtate of the ſurrounding parts would tend greatly to defeat, even if a bandage and compreſs could be applied. Our chief reſource then, though a poor one, is the application of *styptics:* but the patient's life is at ſtake, and we muſt attempt *something*.

In applying ſtyptics, we are to conſider that the moſt powerful are, in general, ſuch as give conſiderable pain, and excite, what to the utmoſt we ſhould avoid, inflammation. Of this deſcription we may inſtance the vitriolated metals, particularly copper, ſpirit of turpentine, alum, and many others included in our diſpenſatories.—Some are of a milder deſcription, but, unhappily, their efficacy diminiſhes in proportion as they are leſs ſtimulating. It is right that we ſhould try the latter, however, and recur to the former only in caſes where the hemorrhage demands a leſſer inconvenience, as the price of avoiding a conſiderable evil.

Some very profuſe bleedings, it appears, have been reſtrained by the application of pounded ice to the part; but in thoſe which call for the uſe of a deciſive remedy, the application of a little of the arſenical cauſtic to the bleeding veſſel, is a ſtep which may very properly be taken, ſince, by the

total obliteration of the veſſel, (which before was only partially opened by the corroſion of the diſcharge) a ſtop may be put to the bleeding for the preſent, and a ſubſequent ſeparation of the eſchar may prevent any future return of it.

I cannot, however, quit this ſubject without mentioning an empirical preparation, which, though deſtitute not only of irritating qualities, but even of aſtringency to the taſte, acts, nevertheleſs, as a moſt powerful *styptic*.—I mean the liquid diſcovered by Mr. Ruſpini. From ſome experience of its effects in other inſtances, I have little doubt, but that, as a means of reſtraining hemorrhage from cancerous ulcers, it is worthy of being recommended, particularly as it can have no detrimental effect on the part, as the other remedies of this claſs have, in a greater or leſs degree, in almoſt every inſtance.

I ſhall now conclude this curſory view of the ſubject of ulcers; happy if any hints I have been able to throw out ſhould prove of utility to my profeſſional brethren, to mankind, or through the influence they may have on ſurgical practice in any reſpect.

APPENDIX.

APPENDIX.

On the mode of treating Ulcers by the mechanical concentration of the surrounding skin.

SINCE the foregoing pages were prepared for publication, I have had the ſatisfaction of peruſing a treatiſe, written by Mr. Baynton, an eminent ſurgeon at Briſtol, on a *new method* of treating ulcers, which, whether it may or may not prove generally ſucceſsful, is marked with a ſtrong feature of ingenuity, and reflects great credit on its inventor.

On peruſing that work, I was almoſt led to apprehend, that any remarks of mine on the treatment of ulcers, by the *common means*,

would be ſuperfluous; and that this opprobium of ſurgery was now about to be removed. I heartily wiſh that had been really the caſe, and that my experience of the good effects reſulting from the excellent mode of treatment recommended, would enable me to ſpeak of it in terms as ſanguine as he has done. But though I muſt join with others (and glad am I to do ſo) in conſidering Mr. Baynton's diſcovery among *the most important* that has ever occurred on the ſame ſubject, I am ſtill juſtified by experience in heſitating to admit its claim to *uniformity of ſuccess*, even in the *fairest* caſes that can occur for the experiment.

After what has been alleged by Mr. Baynton on this ſingular mode of attempting the cure of ulcers; after the teſtimonies in its favour produced by others; and after what, in candour, I muſt allow to be an *ample ſhare* of ſucceſs in the application of adheſive ſlips, in various caſes that have been placed under my care at the Infirmary; I ſhould deem this little publication extremely imperfect, if I did not give my readers a ſufficient account of the proceſs to enable them to make the experiment; and this I cannot do in more adequate language than has been uſed by its

author, who ſays :—" The parts ſhould be firſt cleared of the hair, ſometimes found in conſiderable quantities upon the legs, by means of a razor, that none of the diſcharges, by being retained, may become acrid, and inflame the ſkin, and that the dreſſings may be removed with eaſe at each time of their renewal, which, in ſome caſes, where the diſcharges are very profuſe, and the ulcers very irritable, may, perhaps, be neceſſary twice in the twenty-four hours, but which I have, in every inſtance, been only under the neceſſity of performing once in that ſpace of time.

" The plaſter ſhould be prepared by ſlowly melting in an iron ladle a ſufficient quantity of litharge plaſter or diachylon, which, if too brittle, when cold, to adhere, may be rendered adheſive by melting half a drachm of reſin with every ounce of the plaſter; when melted it ſhould be ſtirred till it begins to cool, and then ſpread thinly upon ſlips of ſmooth porous calico, of a convenient length and breadth, by ſweeping it quickly from the end, held by the left hand of the perſon who ſpreads it, to the other, held firmly by another perſon, with the common elaſtic ſpatula uſed by apothecaries; the uneven edges muſt be taken off, and the pieces cut into ſlips,

about two inches in breadth, and of a length that will, after being paſſed round the limb, leave an end of about four or five inches. The middle of the piece, ſo prepared, is to be applied to the ſound part of the limb, oppoſite to the inferior part of the ulcer, ſo that the lower edge of the plaſter may be placed about an inch below the lower edge of the ſore, and the ends drawn over the ulcer with as much gradual extenſion as the patient can well bear; other ſlips are to be ſecured in the ſame way, each above and in contact with the other, until the whole ſurface of the ſore and the limb are completely covered, at leaſt one inch below and two or three above the diſeaſed part.

" The whole of the leg ſhould then be equally defended with pieces of ſoft calico, three or four times doubled, and a bandage of the ſame, about three inches in breadth, and four or five yards in length, or rather, as much as will be ſufficient to ſupport the limb from the toes to the knee, ſhould be applied as ſmoothly as can be poſſibly performed by the ſurgeon, and with as much firmneſs as can be borne by the patient, being paſſed firſt round the leg, at the ankle joint, then as many times round the foot as will cover

and ſupport every part of it, except the toes, and afterwards up the limb till it reaches the knee, obſerving that each turn of the bandage ſhould have its lower edge ſo placed as to be about an inch above the lower edge of the fold next below.

" If the parts be much inflamed, or the diſcharges very profuſe, they ſhould be well moiſtened, and kept cool with cold ſpring water poured upon them as often as the heat may indicate to be neceſſary, or, perhaps, at leaſt, once every hour. The patient may take what exerciſe he pleaſes, and it will be always found that an alleviation of his pain and the promotion of his cure will follow as its conſequence, though under other modes of treating the diſeaſe it aggravates the pain, and prevents the cure.

" Theſe means, when it can be made convenient, ſhould be applied ſoon after riſing in the morning, as the legs of perſons affected with this diſeaſe are then found moſt free from tumefaction, and the advantages will be greater than when they are applied to limbs in a ſwollen ſtate. But at whatever time the applications be made, or in whatever condition the parts be found, I

believe it will always happen, that cures may be obtained by theſe means alone, except in one ſpecies of the diſeaſe, which ſeldom occurs, but that will hereafter be deſcribed. The firſt application will ſometimes occaſion pain, which, however, ſubſides in a ſhort time, and is felt leſs ſenſibly at every ſucceeding dreſſing. The force with which the ends are drawn over the limb muſt then be gradually increaſed, and when the parts are reſtored to their natural ſtate of eaſe and ſenſibility, which will ſoon happen, as much may be applied as the calico will bear, or the ſurgeon can exert; eſpecially if the limb be in that enlarged and incompreſſible ſtate which has been denominated the ſcorbutic, or if the edges of the wound be widely ſeparated from each other."

The author next obſerves, on a circumſtance, which, with me, I own, has proved very troubleſome, namely, the breaking of the ſkin in the vicinity of the ſores; owing partly to the mechanical effect of the adheſive ſlips, and partly to the irritating quality of the plaſter. He conſiders theſe ſores of conſequence only when lying over the tendon Achilles, in which ſituation they ſometimes require "the care of many weeks,"

and to guard againſt which, he recommends the intervention of a ſmall ſhred of ſoft leather before the ſlip of plaſter is applied.

" It may be neceſſary to add," continues Mr. B. " that cures will be generally obtained without difficulty, by the mere application of the ſlips and bandage; but when the parts are much inflamed, and the ſecretions great, or the ſeaſon hot, the frequent application of cold water will be found a valuable auxiliary, and may be always ſafely had recourſe to where the heat of the parts is greater than is natural, and the body free from perſpiration."

I cannot help obſerving, on the auxiliary remedy here ſuggeſted, that I conceive it to be one of almoſt equal importance with the principal.—Having been long in the habit of directing lotions of various kinds to be applied through the bandage, I can bear teſtimony to the benefits ariſing from that practice in the common treatment of ulcerated legs, and I have no doubt the principal agents in theſe caſes were cold and moiſture, both which are as capable of being afforded by water alone, as by the addition to it of medicinal ingredients.

With regard to the bandage, in chuſing the materials for which, I have, without knowing Mr. Baynton's opinion, happened exactly to coincide with him, I ſhall only obſerve, that I have found myſelf more at liberty to accommodate the uſe of the ſlips to the feelings of the patient (which are generally very much excited on their firſt application) by a nine-tailed bandage, at the ſame time applying to the ſore as much dry lint as is neceſſary to abſorb the diſcharge, and, in ſome caſes, an elaſtic flannel bandage over all.

As I ſhall conclude theſe remarks with an opinion ſomewhat different from Mr. Baynton's, as to the modus operandi of his invention, and alſo as a juſt knowledge of its principles may tend to impreſs the minds of practitioners in general with an adequate idea of its real importance, I ſhall here give the author's theory, as ſtated by himſelf:—

"Various opinions," ſays he, "concerning its *mode* of operation have been ſuggeſted by different learned and ingenious men, ſince the publication of the former edition of this treatiſe; but as none have come to my knowledge more ſatisfactory than thoſe I have adopted, I ſhall attempt

to explain them in this place. To do ſo, even in the limited way I mean to allow myſelf, it will be neceſſary to take a view of the operations of nature in her endeavours to accompliſh cures *where parts have been merely divided.* And alſo *where loss of substance having been experienced,* the edges of the divided parts have been kept aſunder a ſufficient length of time to occaſion their death from defect of circulation. In the former caſe, where parts have been merely divided, re-union is accompliſhed, either by the effuſed fluids acquiring vaſcularity, or (if the parts be brought into contact) by the inoſculation of the old veſſels. In the latter inſtances, that is, where loſs of ſubſtance has happened, and where the death of the edges and ſurfaces of the divided parts has occurred, the firſt ſtep muſt be the removal of thoſe dead parts, which is effected by an abſorption of the extremities of the ſound parts in contact with them, and, perhaps, ſome portion of thoſe dead parts alſo; this conſtitutes the ulcerative proceſs, and is attended with purulent diſcharge. The living parts being thus freed from their incumbrances, the next action to be performed is the ſecretion of healthy matter, or pus, which is alſo a preliminary act to the formation of granulations, and proves their rudiment,

as the formation of granulations is the act which precedes the proceſs of ſkinning. Theſe actions are generally performed without difficulty in a healthy ſtate of the conſtitution and of the parts. But where the conſtitution is ſo diſeaſed by a poiſon as to occaſion diſeaſed actions in the parts; or where the parts themſelves have their healthy actions diſturbed by the irritation of foreign bodies, or poiſons, the ulcerative proceſs is continued. In like manner, when ulcers on the legs of the poor are neglected in their early ſtages, the ulcerative proceſs becomes habitual, and is generally continued to the end of their lives.—The firſt *mistake* committed by ſuch perſons is their omitting to ſupport the parts with proper bandages; the next, the diſturbance of the proceſs of granulating, by too frequently wiping away the matter deſigned to furniſh granulations, or the application of injurious ſubſtances in lieu of that mild material; the conſequence of ſuch omiſſion and improper interference is again the death of the ſurface of the ſores, again the neceſſity of their removal by abſorption, and again the renewal of that proceſs whereby pus is furniſhed for the production of granulations. This round of actions, performed by parts ſituated at a diſtance from the heart, and deſtined to return

fluids through long tubes, in a direction contrary to their gravity, and depending, perhaps, upon the healthy performance of all their actions, for the healthy performance of each individual action is generally attended with inflammation, and as its conſequence, the parts are ſupplied with a larger quantity of blood than was furniſhed in a ſtate of health; this, under the peculiar circumſtances of the arteries, will occaſion a greater depoſition of lymph between the interſtices of the muſcles and the cells of the cellular membrane than is neceſſary for their lubrication, or than the abſorbents can carry away; which, gradually increaſing, will remove the abſorbents from their vicinity to the arteries, and, conſequently, occaſion a loſs to them of the effect of arterial impulſe, which, while the vaſcular ſyſtem of the limb continues in a perfect ſtate, may be ſuppoſed to have conſiderable effect in propelling the returning lymph, as the lymphatic veſſels are plentifully ſupplied with valves; therefore I conclude, that the principal difficulty which occurred in the curing of ulcers, has been occaſioned by deficiency of power in the abſorbent veſſels; and it appears certain, that ſuch deficiency of power is a conſequence of that diſeaſed ſtate of the common integuments of the

limb, which failed to preſerve the parts in a natural ſituation, and to render them ſubſervient to each other's natural actions. The methods which have proved moſt ſucceſsful in the treatment of this diſeaſe appear to ſtrengthen this conjecture, as well as the circumſtance of cures having been found difficult to obtain, in proportion to the length of the continuance of the complaint, and the conſequent diſeaſe of the inveloping membranes. This difficulty has been always increaſed by perpendicular, and other poſitions unfavourable to the tranſmiſſion of fluids: and thoſe caſes have always proved the moſt difficult to cure which have afforded the ſtrongeſt evidence of the abſorbent ſyſtem being in a diſeaſed and weakened condition, namely, thoſe attended with an incompreſſible and greatly thickened ſtate of the limb, in conſequence of interſtitial depoſition; and thoſe attended with a varicoſe ſtate of the veins: whereas, on the contrary, thoſe having generally proved eaſieſt to cure which, being recent, and remaining free from tumefaction, have afforded a probability of the healthy ſtate of that ſyſtem of veſſels. If this theory of the diſeaſe, and of the effects of its remedy, be admitted, we ſhall be no longer at a loſs to account for the ſucceſs which attends an

application of theſe means; whether applied to recent ulcers, where parts are merely retracted, and where it is only neceſſary to bring them into contact to obtain cures by inoſculation, which is the moſt deſirable event, as it ſaves time, and enables us to arm the part with its original ſhield; or, whether loſs of ſubſtance has been ſuſtained, and the edges and ſurfaces of the ulcers have been kept ſo long aſunder as to occaſion their death, and at length the habitual repetition of the ulcerative proceſs; or, whether cures have been prevented by the inactivity of the abſorbents, as happens to the ulcers of aged people, attended with thickened edges.

" In recent ulcers, it forms an uniting bandage, which enables us immediately to approximate retracted parts, and affords a temporary ſubſtitute for the healthy integuments, not liable to the inconveniencies incident to thoſe when weakened by a long continued courſe of diſeaſe. When it is applied ſo as to afford ſupport to the whole of the diſeaſed limb, perſons may walk great diſtances, or even indulge in irregularities, without obſtructing their cures, as it ſubjects every part to the effects of the natural actions of the contiguous parts, and aſſiſts eſſentially the in-

dividual actions of each part concerned in the buſineſs of repair; and whether ſlough is to be removed, pus to be ſecreted, granulations to be formed, or ſkin to be re-produced, it happens that each of theſe actions commences and proceeds in the natural order of their ſucceſſion, whether the diſeaſe be recent, or in that ſtate of habitual ulceration which has been termed the irritable; or whether, after long continuance, and the expenditure of the powers of the parts, it has fallen into a ſtate of inactivity, and acquired the characteriſtic of deficient abſorption, the callous edge."

My objection to the theory here produced is, that it does not appear to me to correſpond with the practice; nor do I ſee, admitting the diſeaſe to ariſe from a "deficiency of power in the abſorbent veſſels," how the drawing of the ſkin, by mechanical means, from the circumference towards the centre of an ulcer, can at all contribute to reſtore their functions. Neither, indeed, does it appear to me to have been explained by Mr. Baynton, how, by the uſe of his method, that "diſeaſed ſtate of the common integuments of the limb," from which the defective abſorption ariſes, can admit of a remedy in the way he

ſuppoſes. Let it be obſerved, that I am not queſtioning the fact, but the explanation of it, which, I muſt ſay, I think is by no means competent.

With ſubmiſſion to the opinions of the author, and of thoſe by whoſe communications he has profited, I will venture the following looſe conjectures on this ſubject.—I believe with Mr. B. that the chief ſeat of an ulcer is the common integuments, which, being compoſed of ſoft and yielding materials in a healthy ſtate, are affected by every motion of the limb. The means moſt conducive to the cure of an ulcer, after the old practice, it is well known have been thoſe which, premiſing certain applications to the ſurface, have moſt completely *prevented motion in the ulcerated part.* I do not mean progreſſive, but relative, motion; not motion as it relates to the leg, but to the ulcer upon it, and to every part directly connected with its ſurface.

Whatever be the proceſs by which nature reſtores to health thoſe parts which have been ulcerated, it is evident ſhe requires a ſuſpenſion of all active exertion, before her efforts to perform it can be ſucceſsful. She does not, indeed,

require that the whole machine ſhould ceaſe to act becauſe an inconſiderable part of it has been impaired, but ſhe certainly requires, that, inſtead of being put upon the ſtretch by the accuſtomed motions of the body, the injured parts, namely, the ſkin and common integuments, ſhould be left at leiſure for her operations. It is only the want of this ſtate of reſt that cauſes a ſlight ſcratch to become a conſiderable ulcer; for if the patient's condition in life allow him to avoid walking, no artificial treatment is neceſſary to obtain a cure. If the motion of the body, producing an injurious attrition of the parts of an ulcer, were not the principal cauſe of its extenſion, why have we ulcers of a particular character on the legs?

"The round of actions," ſo well deſcribed by Mr. B. may, I apprehend, be ſufficiently accounted for by the conſtant interruption which the natural cure of an ulcer experiences by the exertion of the limb in walking; allowing ſomething, however, for a long and daily repetition of theſe exertions, which, at length, bring the parts into a ſtate far different from that in which they were when the ulcer commenced.

It is this ſtate which requires the application of medicinal remedies, but moſt of all, *rest*; and it appears to me, that, without going out of our way to inveſtigate the diſeaſed habits of an ulcerated part, we may account for the ſucceſs of Mr. B.'s method, by conſidering it as *the means of rest to those parts which most essentially require it*, whilſt it leaves at liberty thoſe which rather promote than retard the cure by being exerciſed.

When the ſkin is drawn in, and, as it were, *pursed* up, from the circumference towards the centre, and this poſture no leſs ſecured by ſlips of plaſter than by an external bandage which prevents their giving way, its relaxed ſtate muſt be preſerved, in ſpite of the exertions of the limb in progreſſive motion; and I am diſpoſed to attribute to this ſimple circumſtance, rather than to the more elaborate principles deſcribed by Mr. B. the beneficial conſequences which, undoubtedly, have reſulted, in many inſtances, from his plan of treatment.

Who will ſay, however, that medicinal applications, correſponding to the particular aſpect of the ſeveral parts of an ulcer, are not material? I confeſs I think they are, and that, as well as in

thoſe inſtances where the ſlips of plaſter *alone* are inſufficient, they will, in many others, prove a very important auxiliary; and I am alſo fully ſatisfied, without any diſparagement to Mr. B.'s diſcovery, to which I readily allow all the merit it deſerves, that the uſe of the dry powders, recommended by Mr. Home, and of a nine-tailed bandage, already hinted at in Mr. Sandford's letter, are methods worthy of adoption; at leaſt, where the mechanical traction of the ſkin towards the centre of the ulcer happens to be inadequate or ſlow in producing the deſired effect.

As a ſubject of this importance cannot be too ſtrictly inveſtigated, I ſhall not fail to pay farther attention to it; and ſhall moſt willingly, if future experience lead me to embrace the whole of Mr. B.'s opinions, retract any thing I have ventured to urge in oppoſition to them.

THE END.

Printed by R. Raikes, Southgate-street, Glocester.